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NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

**INFORMATION INFRASTRUCTURE AND SOCIAL
ADAPTATION IN RURAL AFGHANISTAN**

by

John Mark Wilson

December 2010

Thesis Advisor:
Second Reader:

John Arquilla
Hy Rothstein

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**INFORMATION INFRASTRUCTURE AND SOCIAL
ADAPTATION IN RURAL AFGHANISTAN**

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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN INFORMATION OPERATIONS

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ABSTRACT

This thesis explores whether the expansion of cellular phone networks and community-based radio broadcasting into rural Pashtun communities could create operational vulnerabilities for the Taliban. Divergence is observed between the population's adaptive behavior in response to the Taliban's rural information strategy and the expansion of the information infrastructure. This study shows that this variance in the population's responses could create an operational vulnerability for the Taliban. The success of any expansive information strategy, however, may ultimately be limited by the population's fear of Taliban reprisals and other inhibitors, such as illiteracy and inexperience in operating advanced technologies. To counter this condition, information strategists should implement cellular phone and community radio-based programs in areas where an embedded security apparatus, such as the Village Stability Platform (VSP), can enhance local security conditions. By reducing the Taliban's capacity for using violence to intimidate the population, developmental advisors embedded within the VSP can implement tailored cellular phone and community radio programs that exploit local incentive structures more effectively. With persistence, the benefits of these information systems will become increasingly apparent to the population, weakening Taliban influence.

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LIST OF ACRONYMS AND ABBREVIATIONS

ANDA	Afghan Natural Disaster Management Authority
ANDMA	Afghanistan National Disaster Management Authority
ANP	Afghan National Police
ANSF	Afghanistan National Security Forces
BBC	British Broadcasting Corporation
CF	Coalition Forces
CSTC-A	Combined Security Transition Command-Afghanistan
DV	Dependent Variable
E-TOPUP	Electronically Topping Up
GIROA	Government of the Islamic Republic of Afghanistan
GSM	Global Systems for Mobile Communications
HTS	Human Terrain System's
ICT	Internet Communications Technologies
IE	Information Environment
ISAF	International Security Assistance Force
IV	Independent Variables
IVR-S	Interactive Voice Response System
KBI	Knowledge-Based Infrastructure
KYC	Know Your Client
MFI	Micro-Finance Institutions
MoA	Ministry of Agriculture
MoF	Ministry of Finance
MoI	Ministry of Interior
MoM	Ministry of Mines
MSOs	Mobile Service Operators
NDS	National Directorate of Security
NGO	Nongovernmental Organizations
PSYOP	Psychological Warfare
SMO	Social Movement Organization

UNAMA	United Nations Assistance Mission in Afghanistan
UNESCO	United Nations Educational, Scientific, and Cultural Organization
USIP	United States Institute of Peace
USSD	Unstructured Supplementary Service Data
USSR	Union of Soviet Socialist Republics
VSP	Village Stability Platforms

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I. INTRODUCTION

A. OVERVIEW

The purpose of this thesis is to determine whether the expansion of cellular phone and radio broadcast infrastructures into rural Pashtun communities in Afghanistan will create vulnerabilities for the Taliban's rural strategy, creating an opening that a skillful information strategy might exploit. In answering this question, the author hopes to be in a position to recommend an information strategy that exploits the development of these infrastructures to create an operational advantage for International Security Assistance Force (ISAF). The author theorizes that these information systems vary in their capacity to create vulnerabilities for the Taliban, and consequently, will require different informational exploitations to achieve a strategic advantage.

Increased connectivity between social networks, ushered in by innovations in information systems technology, is apparent across the globe. While this is certainly true in parts of Afghanistan, social adaptation to these technological changes within remote Pashtun areas is governed by unique socio-economic dynamics. Successful influence strategies that leverage or deny the use of information systems technology in Afghanistan should reflect an understanding of these environmental variables. Consequently, the degree to which the Taliban or ISAF information strategies master these considerations could have a systematic impact upon the Taliban's ability to maintain a lasting influence in Afghanistan.

As described in greater detail in subsequent chapters, both ISAF/GIROA (Government of the Islamic Republic of Afghanistan) and the Taliban face important challenges in successfully implementing their respective information strategies. Consistent with historical patterns of conflict with irregular adversaries, one of ISAF/GIROA's most prominent problems is its inability to illuminate the Taliban network. The most apparent indicator of this problem is the amount of time and resources ISAF must expend to detect and eliminate members of the Taliban's network. Additionally, the Taliban's ability to conceal its activities makes it difficult for

ISAF/GIROA to detect exploitable vulnerabilities in the information environment (IE). Similarly, while the Taliban has achieved some success with its shadow government, it does not possess a comparative advantage over ISAF in its capacity to deliver economic development to the population. Also, the Taliban is highly unpopular with many segments of the rural Pashtun population; a problem that it routinely counters with a violent narrative of retribution and coercion. A central aspect of this study is to understand the role that the expansion of cellular phone networks and radio broadcasts infrastructures could play in helping ISAF/GIROA and the Taliban overcome these limitations.

B. CONCEPTUAL FRAMEWORK

To evaluate how the expansion or introduction of cellular phone networks and radio broadcast infrastructure into rural Pashtun society could create vulnerabilities for the Taliban, this work draws upon literature from framing and social adaptation theories. Framing theory is necessary to understand how the Taliban conceives and operationalizes its information strategy relative to information systems infrastructure. Social adaptation theory literature is relevant because it helps explain the cultural, social, and economic factors governing the Afghan population's response to the Taliban's information strategy and ISAF's introduction of information infrastructure.

One must understand how the Taliban has conceived and implemented its information strategy before making any assessment of exploitable vulnerabilities. To this end, this study draws upon literature from the field of framing theory to develop an analytical framework that supports structured evaluation. In his work, *Frame Analysis: An Essay on the Organization of Experience*, Erving Goffman describes frames as individual or collective processes that enable people to locate and label occurrences in their environments and to assign unique meanings to them.¹ Simply put, framing is the largely subconscious process by which a target audience arranges information from its environment and interprets it, which has important implications for the information

¹ Erving Goffman, *Frame Analysis: An Essay on the Organization of Experience* (Cambridge: Harvard, 1974), 21.

strategies under investigation. First, for an influence campaign to be effective, those responsible for its design would have to understand how the target audience would perceive and respond to its implementation. A competitor's understanding of the variables that govern the target audience's interpretation of occurrences in its environment could be a significant factor in determining the outcome of influence operations.

Evaluating the degree to which an influence-based campaign accounts for framing requires an analytical framework that simplifies a very complex process. Snow and Benford largely achieve this, arguing that an understanding of this process is predicated upon the mastery of its three core tasks: diagnostic framing, prognostic framing, and motivational framing.² Diagnostic framing is the process by which a social movement organization (SMO) attributes blame or culpability for a perceived problem. Rarely, however, does this process result in consensus among SMOs about the source or nature of the perceived problem, suggesting an influence operation seeking to exploit an SMO's sentiment might be fraught with complexities.³ The second process, prognostic framing, is the process by which SMOs articulate and come to a consensus about how to deal with the perceived problem. The relationship between diagnostic and prognostic framing is important because the identification of problems naturally constrains the range of an SMO's reactionary responses.⁴ Additionally, the prognostic process is further constrained by other sources of influence in the information environment, such as media and competing SMOs. The third process, motivational framing, is the process by which SMOs influence others to take action through a variety of means. Simply stated, this is the stage of the framing process where an entity implements its strategy, setting in motion the actions designed to manipulate the information environment to achieve its objectives. Underpinning the motivational process, and the theoretical output of framing process, is the construction of the themes that will motivate and guide the actions of others.⁵

² Robert D. Benford and David A. Snow, "Framing Processes and Social Movements: An Overview and Assessment," *Annual Review of Sociology* 26 (2000): 615.

³ Ibid., 617.

⁴ Ibid., 616.

⁵ Ibid., 617.

The second body of literature informing this study, social adaptation theory, is important because it provides a framework for understanding how the Afghan population could respond to competing information strategies. Lucius Bristol's, *Social Adaptation: A Study in the Development of Adaption as a Theory*, facilitates the understanding of this complex process through his "mode of adaptation" model. He explains a group's response to change is a function of its environment and its mode of adaptation. According to Bristol, two categories of environment exist, material and social, and two classes of adaptation, passive and active.⁶

For the purposes of this study, active adaptation, the purposeful modification of a social order to suit environmental changes, is the most relevant adaptive mode for analysis because it emphasizes measurable responses a population can make in response to environmental manipulation. Similarly, the elements of both the social and material aspects of the environment are relevant to this study. The importance of the social dimension of the environment is apparent because it addresses the cognitive and cultural functions that affect adaptation. Additionally, the physical dimension is worthy of consideration because it highlights the importance physical infrastructure can play in transforming society (as seen in the Industrial Revolution). Passive adaptation, a long-term process that changes culture, language, and customs, is not relevant for analysis since this study is designed to determine if the expansion of information infrastructure will create vulnerabilities for the Taliban prior to the expected withdraw of ISAF in 2014.

Consequently, as Figure 1.1 shows, this study focuses upon two modes of social adaptation, *active-material* and *active-social*. In this study, the *active-material* mode refers to the process by which the Taliban and ISAF either expand or reduce Afghanistan's information infrastructure as part of an information strategy. The *active-social* mode is relevant because it emphasizes the purposeful adjustment of a community or individual's social structure in response to environmental changes. While Bristol's

⁶ Lucius Bristol, *Social Adaptation: A Study in Development of Adaptation as a Theory* (Cambridge: Harvard University Press, 1921), 9.

model provides this study with broad classifications of adaptations relevant to influence operations in Afghanistan, it does not describe the specific behaviors that could emerge from individuals and communities adapting to information strategies.

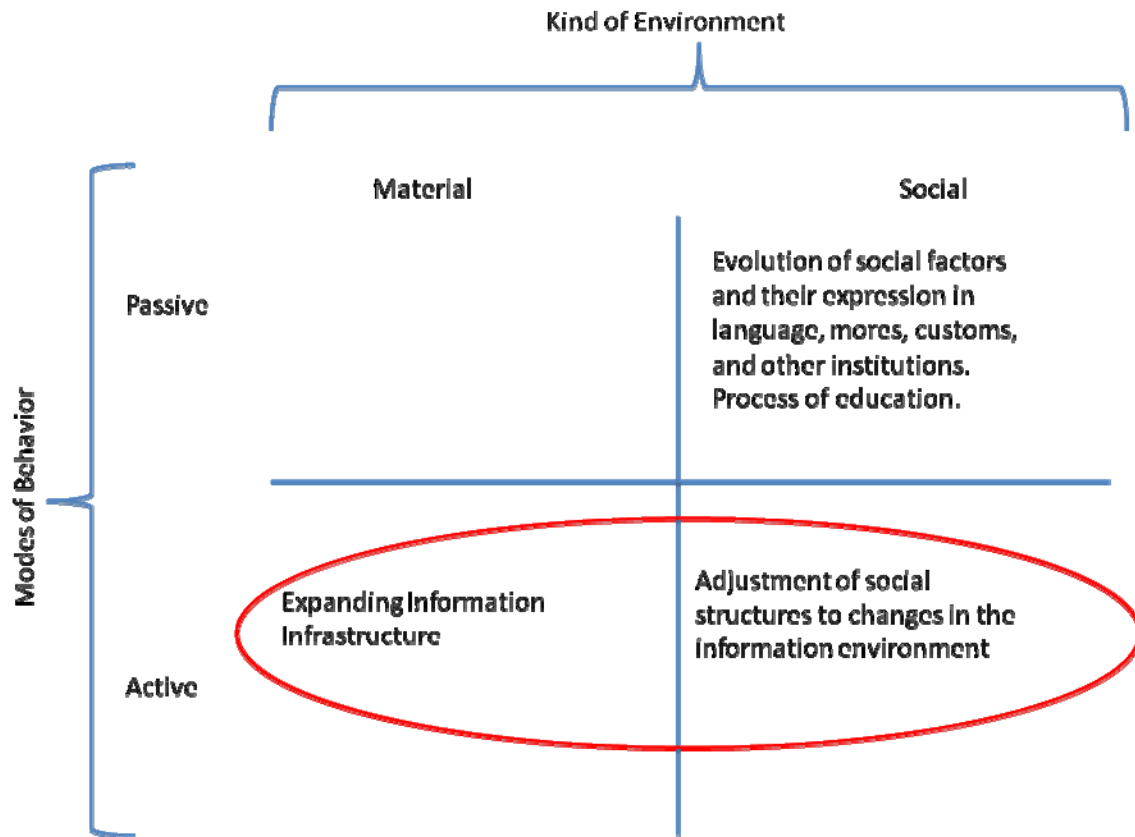


Figure 1.1. Bristol's Model for Modes of Adaptation⁷

Filling this void, Robert K. Merton's, *Social Theory and Social Structure*, provides this study with a typology of adaptive behaviors that reflect a range of community and individual responses to social manipulation. According to Merton, social structures will shift between each of these modes of behavior as they engage in different types of social influence activities.⁸ The first type of behavior, conformity, occurs when community members agree with an entity's goals and use socially accepted means

⁷ Bristol, *Social Adaptation*, 9.

⁸ Robert Merton, *Social Theory and Social Structure* (Glencoe: The Free Press, 1957), 140.

through which to achieve them. Consequently, conformity is the most frequent type of adaptation and is more closely associated with collective behaviors than other modes. Since this study's focus is on how information strategies alter social structures, there is little utility in further explaining this mode of adaptation.

The second behavior, innovation, is predicated upon the existence of “success-goal” emphasis within the social structure's culture and a willingness to abandon traditional, institutionalized means of achieving that success.⁹ The Afghan social structure's capacity for innovation is important to this study because many of its areas are characterized by an undeveloped information infrastructure, making the development of this form of social adaptation within the community a precursor to the success of an expansive information strategy. Since, according to Merton, understanding the cultural factors affecting a social structure's predisposition to this type of adaptation is critical to understanding a community's potential for innovation, this study evaluates literature from Afghan culture in subsequent paragraphs.¹⁰

The third behavior, rebellion, is a mode of adaptation associated with individuals and communities who, having experienced alienation, seek to change a social structure radically. According to Merton, “when the institutional system is regarded as the barrier to the satisfaction of legitimized goals, the stage is set for rebellion as an adaptive response.”¹¹ Rebellion, as observed by Merton, requires revolutionaries to completely withdraw from their social structures and adopt new orientations. Since information strategies seek to affect social change through the manipulation of the information environment, it is feasible that a competing narrative could spark a rebellion, and thus, making it an important consideration in the development of this study's framework.

The fourth and fifth modes of adaptation, retreatism and ritualism, are related to rebellion in the sense that they involve the repudiation of the social structure and its norms. However, these behaviors also possess key features that distinguish them from

⁹ Merton, *Social Theory and Social Structure*, 141.

¹⁰ Ibid.

¹¹ Ibid., 155.

rebellion. Retreatism, the least likely form of adaptation, is largely an individual behavior that occurs when culturally assimilated people in a society do not have access to the same avenues to success as others in a community. As a result, they tacitly withdraw from productive society, becoming “in society, but not of it.”¹² For the purposes of this study, the author does not consider retreatism because it does not represent collective behavior. Ritualism also entails the abandonment of cultural norms, but adaptive measures are largely confined to institutionalized norms.¹³ Simply stated, while ritualistic communities might acknowledge cognitively that aspects of their existing social structure must be changed in response to external manipulation, their overt behaviors do not change. Therefore, ritualism is not deviant behavior, an important point of divergence from rebellion. Ritualistic behaviors are important to consider in this study because they account for modes of adaptation that lie outside easily observed patterns of behaviors, such as conformity and rebellion.

Possessing a theoretical framework for understanding the modes of adaptations and the range of potential behaviors associated with each, the next step is to develop an understanding of the dynamics of Afghanistan’s culture that will govern the population’s range of responses to external manipulation. For the purposes of this study, the author only examines cultural dynamics in the Pashtun areas because they are the most operationally relevant to ISAF’s campaign in Afghanistan. To understand what aspects of Pashtun culture will govern social adaptation, this work draws upon the expertise scholars and practitioners who have studied Afghan culture and have engaged in influence operations there.

Three important works informed this study’s conceptualization of Pashtun culture. First, Shahmahmood Miakhel, former Deputy Minister of the Interior in Afghanistan (2003–2005), recently wrote an informative paper entitled “The Importance of Tribal Structures and Pakhtunwali in Afghanistan: Their Role in Security and Governance.”

¹² Merton, *Social Theory and Social Structure*, 153.

¹³ Ibid.

This work is important because it not only describes the most important cultural dynamics of Pashtun culture, but also highlighted why these dynamics provide opportunities and challenges to those seeking to mobilize Afghan tribes.

The second work, Lincoln Keiser's *Friend by Day, Enemy by Night: Organized Vengeance in a Kohistani Community*, is a cultural anthropologist's case study of social adaptation within a Pashtun community. It is critical to this thesis because it provides a rare, nuanced view of how Pashtun communities make decisions, resolve conflicts, respond to outsiders, and adapt to threats.

The third work, The TRADOC G-2 Human Terrain System's (HTS) "My Cousin's Enemy is My Friend: A Study of Pashtun "Tribes," conceived as a response to ISAF's emphasis upon tribal engagement, is important to this study because it analyzes many of the social and cultural factors that affect social adaptation in rural Pashtun communities, a critical area for ISAF influence operations. Additionally, because no monolithic view of Pashtun culture exists, it shows the limitations associated with evaluating Afghan society through a purely tribal framework. According to the HTS' report, surveys suggest that certain non-tribal aspects of rural Pashtun life are equally as important, if not more so, as tribal dynamics that govern social adaptation.¹⁴ The author uses both of these works to describe many of these dynamics and show how they relate to the research question.

1. Honor/Shame

The Pashtun concept of honor has two dimensions relevant to this study, *Azzat* and *Ghrai rat*. *Ghrai rat* is given to Muslim males by Allah and is considered by believers to be closely linked to personal integrity.¹⁵ The key point regarding *Ghrai rat* is that while the Pashtun believe that it cannot be earned by a man's earthly actions, he can lose it by failing to meet important obligations. For example, it is common to find men in Pashtun

¹⁴ United States Army, TRADOC G2 Human Terrain System, *My Cousin's Enemy is My Friend: A Study of Pashtun Tribes in Afghanistan* (Fort Leavenworth, Kansas, 2009), 5.

¹⁵ Lincoln Keiser, *Friend by Day, Enemy by Night: Organized Vengeance in a Kohistani Community* (Belmont: Thomson, 2002), 53.

villages that believe that they can lose *Ghrrairat* by not successfully protecting their women.¹⁶ *Aizzat*, on the other hand, is respect that is given by others within an individual's community. Wealth, esteem, and political power are common indications of *Aizzat* within Pashtun communities. While *Aizzat* is important, it is clearly less important than *Ghrrairat*, which is relevant to this study because it shows that an Afghan's sense of *Aizzat* is not so strong as to discourage innovation and entrepreneurship because the risk of failure is too strong. Only if the business venture violates Islamic principles would honor absolutely be an inhibitor to innovation. Additionally, since revenge is an important means by which a Pashtun reclaims his sense of honor, information strategies implemented in remote areas of Afghanistan could indirectly lead to community instability and conflict.

2. Islam

While Islam itself is insufficient to explain decision-making within Pashtun communities fully, its consideration is necessary because it limits the degree to which an information strategy can manipulate other variables affecting social adaptation. The literature shows that external entities, particularly those considered to be *infidels*, seeking to expand their influence into a Pashtun community, would not be successful if the people see them as a threat to Islam. For example, Keiser recalled a moment when members of a Pashtun village were exhorting the *jirga* not to grant him access to the community because they were *infidels*. Only after two important town leaders explained to the community that their presence did not violate Islamic law and that Allah would bless their community for showing the visitors hospitality were the community's fears allayed.¹⁷ Keiser also shows that Pashtun religious beliefs are so strong that community attitudes tend to be fatalistic with regard to temporal matters. Consequently, while they believe that Allah grants personal safety and wealth, their sense of *Aizzat* is something left to their control.¹⁸

¹⁶ Keiser, *Friend by Day, Enemy by Night: Organized Vengeance in a Kohistani Community*, 54.

¹⁷ *Ibid.*, 31.

¹⁸ *Ibid.*

Understanding the role Islam plays in these communities is important to this study for three reasons. First, Islam serves as an effective screening criterion for the introduction of developmental or informational strategies into these communities. Second, whether or not the developmental initiative violates Islamic principles, opposition or support within Pashtun communities, while framed by Islamic themes, could nevertheless be grounded in economic, political, and social considerations. Therefore, gaining the support of respected members of the community who are fully aware of this dynamic and are sufficiently persuasive to navigate these waters is critical. Third, because Pashtuns are fatalistic in outlook, external entities seeking to implement developmental or entrepreneurial initiatives should not always assume that an individual's motivation for personal safety is more powerful than the opportunity to increase his honor.

3. Economics

Innovation, competition, and achievement in the pursuit of goals are not inconsistent with Pashtun cultural values, and therefore, are important considerations in evaluating social adaptation to increased opportunity for economic development. In fact, these dynamics are so strong in Pashtun culture that it puts family members in competition with one another for the honor of bringing a source of prosperity into the village. As the HTS report observes, this sense of competition drives competing family members to co-opt entities outside their communities or kinship networks to provide resources that help them gain an advantage over their rivals.¹⁹ Keiser agrees, citing an incident where members of Pakistani Pashtun community used hospitality to induce a government veterinarian to limit his services to only their animals.²⁰ Miakhel also agrees, but suggests that competition (*seyali*) is only permitted against persons of equal status

¹⁹ United States Army G2, *My Cousin's Enemy is My Friend: A Study of Pashtun Tribes in Afghanistan*, 12.

²⁰ Keiser, *Friend by Day, Enemy by Night: Organized Vengeance in a Kohistani Community*, 19.

within the social structure.²¹ The cultural genesis of intra-community competition is an important consideration for this study because it could influence, positively or negatively, initiatives designed to develop a community's economy.

Wealth is also not inconsistent with Pashtun cultural values. Since the possession of wealth is so heavily associated with their sense of honor, if a Pashtun cannot defend his wealth, he loses favor within his social network and faces the prospects of losing face or even outright ejection from the community.²² This dynamic is relevant to this study and poses two interesting questions that warrant deeper analysis. First, if the expansion of a community's information infrastructure has the potential to deliver economic benefits previously unseen by a Pashtun community, how could an information strategy nurture traditional cultural mores associated with innovation and competition to generate community interest. Second, given the emphasis Pashtuns place upon defending their wealth, how can an information strategy exploit Taliban efforts to deny the population's access to a potentially profitable venture and create a popular backlash against their efforts?

4. Patronage

Identity, while an important variable impacting adaptation, is a broad concept requiring refinement to be useful in a structured analysis. It is incorrect to assume that a typical Pashtun village is comprised of people bound by a single identity that guides them to collective action. Similarly, tribalism is problematic because it assumes unity of effort and purpose. As will be described in the following paragraphs, the literature shows that to influence rural Pashtun communities, information strategists must think beyond tribal lines and evaluate other identities more important for purposes of social adaptation. Instead, patronage appears to be a common dynamic apparent in rural Pashtun decision-making structures across tribal and non-tribal identities, and thus, making it a relevant variable affecting social adaptation.

²¹ Shahahmood Miakhel, "The Importance of Tribal Structures and Pakhtunwali in Afghanistan: Their Role in Security and Governance," 2008, 2, <http://pashtoonkhwa.com/files/articles/Miakhel%20-%20Importance%20of%20Tribal%20Structures%20in%20Afghanistan.pdf>.

²² Ibid., 3.

Common views on Pashtun tribes are that they organize along kinship lines and that they act collectively to achieve their goals. While true in some cases, this view neglects the historical tendency of Pashtun decision makers to make practical decision often at odds with blood relatives.²³ For this reason, experts in Afghan cultures sometimes prefer the use of the term *qawm*, meaning a group of people not necessarily related within a community whose common beliefs lead them to act in solidarity.²⁴ The important point here is that *qawms* change, many times in response to individual adjustment to environmental conditions, and not out of blind adherence to familial preference.²⁵

5. Patronage

On the other hand, patronage, while not always practiced along tribal and kinship lines, is an enduring aspect of Pashtun culture that governs social adaptation within and sometimes across communities. According to the HTS report, decades of war and external manipulation have, in some cases, created a culture within Pashtun tribes where “strongmen” form followings within Pashtun areas by providing services to the people regardless of familial ties.²⁶ In other cases, a patronage network, where a *khan* distributes goods and services to the people to maintain the community’s loyalty, manifests this dynamic. While familial affiliation often plays an important role in determining the distribution of the goods, the HTS report demonstrates that it is not culturally inconsistent for patronage to favor non-tribal and non-familial entities if it helps the *khan* achieve a political advantage.²⁷

The consideration of patronage in rural Pashtun villages is not limited to the distribution of economic benefits, but also extends to security arrangements. A critical,

²³ United States Army G2, *My Cousin’s Enemy is My Friend: A Study of Pashtun Tribes in Afghanistan*, 9.

²⁴ Miakhel, “The Importance of Tribal Structures and Pakhtunwali in Afghanistan: Their Role in Security and Governance,” 1.

²⁵ United States Army G2, *My Cousin’s Enemy is My Friend: A Study of Pashtun Tribes in Afghanistan*, 9.

²⁶ *Ibid.*, 13.

²⁷ *Ibid.*, 14.

yet largely unknown, social identifier that could prove to be a major determinant in social adaptation is the *andawalii*—a term that means “friendship” in Pashto.²⁸ Based upon the system of patronage described above, *andawalli* refers to the tendency of powerful figures to be accompanied by a group of trusted loyalists as they progress in life. These links are considered to be among the strongest in Pashtun culture today because many of them were forged while serving as *mujahedeen* during the Soviet War in Afghanistan. After the Taliban’s rise to power, the *andawalli* network appeared in its governmental structure, particularly in military, police, and intelligence agencies.

Pashtun patronage is important to this study for several reasons. First, it shows that it is not culturally inconstant for entities outside of a Pashtun kinship network to leverage influence over the community. Whether done through the model of the patronage network, or external entities, such as the anti-Soviet *mujahedeen*, the literature shows that it is possible for parties external to the kinship network to subsume local, Pashtun social structures. Second, it shows that a patron’s capacity to influence a Pashtun community is just as likely to be governed by their ability to deliver goods and services to the community as it is by familial ties. Third, since it is likely that future Taliban, GIORA, and local security arrangements will be based upon *andawalli*, it will be relevant to understand the role that information infrastructure expansion can have in solidifying or degrading this identity. Fourth, economic benefits tied to the introduction of information infrastructure in rural areas can serve as a powerful incentive for key figures within a patronage network to put their relationships to work to ISAF’s advantage.

6. Conflict

Local conflict is a fixture of Pashtun culture and is not only a significant variable in predicting social adaptation, but has been exploited by external entities seeking to control these areas throughout recent history. As previously discussed, competition among community members with familial ties emerges from a variety of sources including a Pashtun’s sense of honor or a male’s desire to better position himself for

²⁸ Borhan Younus, “Understanding the Afghan War, Part Two: Rise of Taliban and State Crisis,” March 19, 2008, http://www.islamonline.net/servlet/Satellite?c=Article_C&pagename=Zone-English-Muslim_Affairs%2FMAELayout&cid=1203758215509.

inheritance. Consequently, violent conflict emerges from this milieu, particularly in areas with weak community institutions. Traditional tribal and community institutions, such as the *jirga* and *shura*, have been weakened by years of war because mujahidin commanders, the communist government of the 1980s and early 1990s, strongmen, and the Taliban have targeted generations of effective community elites in an effort to implement their own institutions to influence the population.²⁹

In some Pashtun areas, the crippling of traditional conflict resolution apparatuses, such as *jirgas*, coupled with the GIROA's inability to solve local disputes, has created a void that the Taliban has filled with its own institutions. For example, in some cases, the Taliban's willingness to serve as a fair and efficient arbiter of local disputes makes it a community asset. Being responsive (reaching arbiters is easy as making a phone call), not requiring an oath of allegiance, or demanding payment from affected parties, practices based upon Islamic principles, all make the Taliban an efficient source of justice and increases its legitimacy in the face of the populace.³⁰ In essence, this represents an effort by the Taliban to provide a valued service that, with continued success, will generate trust within Pashtun communities. Therefore, local conflict is an important consideration for this study because, as the Taliban have demonstrated, the establishment of apparatuses that answer the population's call to adjudicate their disputes is a means to gain influence. From the perspective of this study, a key question emerges: can the expansion of information infrastructure increase social capital and serve to help Pashtun communities deal with conflict more effectively than the Taliban?

This idea is critical to this study for several reasons. First, successful information strategies in Pashtun areas cannot assume tribal collectivism and must either mend or exploit rifts within kinship networks to be successful. For example, during the Soviet War in Afghanistan, the *mujahedeen* were able to gain access to and expand their influence within certain areas by allying with one or more parties involved in disputes

²⁹ United States Army G2, *My Cousin's Enemy is My Friend: A Study of Pashtun Tribes in Afghanistan*, 17.

³⁰ Yochi Dreazen and Siobhan Gorman, "Taliban Regains Power, Influence in Afghanistan: Sets Up Courts, Local Governments in Southern Regions," *The Wall Street Journal*, November 20, 2008, <http://online.wsj.com/article/SB122713845685342447.html>.

between members of the same kinship network. Such an approach not only enabled the *mujahedeen* to alter the balance of power within a community in a way that secured an operational advantage, but it also guaranteed recruits for the insurgency.³¹ Additionally, prior to Pakistani independence, *Nawab* rulers in Pashtun areas encouraged local strife by encouraging blood vengeance. Essentially, by levying fines against offended parties for not seeking revenge, *Nawabs* provided an economic incentive that fostered enough divisiveness within Pashtun communities that enabled better control of the population.³² Second, lacking a solid historical tradition of collective action, it is completely feasible for Pashtun tribes to respond to an external information strategy with any one of the Merton's modes of behaviors (Figure 1.3), validating its usefulness as an analytical framework.

Before introducing the variables that govern this study, it is useful to summarize the major points emerging from the literature by incorporating them into an analytical model. A structured analysis of how the introduction of information infrastructure affects social adaptation in Pashtun communities is only possible with the construction of an analytical model because it effectively simplifies a complex process. To this end, the author has developed a social adaptation and influence model representative of a Pashtun community (Figure 1.2). As the model shows, the process by which the Taliban's rural strategy manipulates the community's information environment is conceptualized and implemented through the completion of Snow's framing tasks, diagnosis, prognosis, and motivation. Next, the model shows that social adaptation in rural Pashtun communities is governed by four socio-cultural factors: economic utility, informational reach, patronage, and safety. Finally, the population will demonstrate one of four modes of social adaptation, as described by Merton: conformity, innovation, rebellion, or ritualism. It is important to note that this is a conceptual model. The next section describes how this

³¹ United States Army G2, *My Cousin's Enemy is My Friend: A Study of Pashtun Tribes in Afghanistan*, 12.

³² Keiser, *Friend by Day, Enemy by Night: Organized Vengeance in a Kohistani Community*, 48.

model is operationalized and integrated into a structured analysis that evaluates the role that competing information activities have upon social adaptation in rural Pashtun communities.

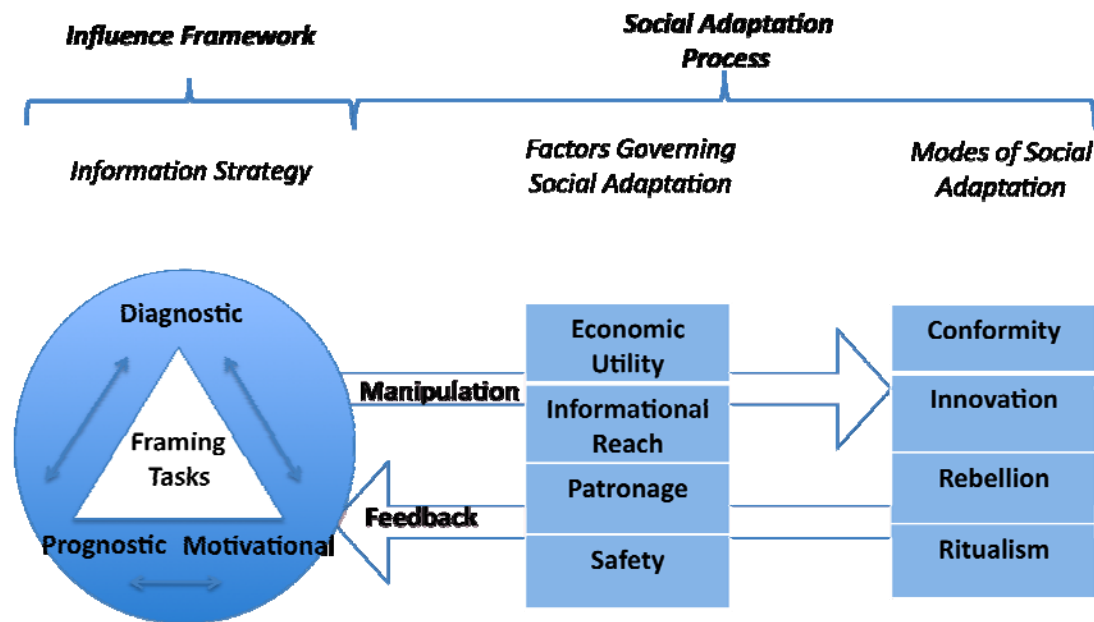


Figure 1.2. Influence Operations Framework for Pashtun Community

C. THE DEPENDENT VARIABLE

The population's responses to competing information strategies serve as this study's dependent variable (DV). This study measures variation within the dependent variable by the range of behaviors the population exhibits within Pashtun socio-cultural constraints. According to the Pashtun community influence model in Figure 1.2, these responses will be measured qualitatively using Merton's modes of social adaptation: conformity, rebellion, ritualism, and innovation. Conformity will be judged when an information strategy induces the population to align its goals with that of the competitor. Rebellion will be judged when a competitor's information strategy causes the population to view it as an obstacle to the realization of community goals and responds with active resistance. Ritualism will be judged when a competitor's information strategy causes the population to view it as an obstacle to the realization of community goals, but does not

respond with an active resistance in deference to other interests. Innovation will be judged when a competitor's information strategy does not cause the population to view it as an obstacle to the realization of community goals, but rather induces them to make changes to the traditional manner in which they pursue these goals.

To operationalize the population's responses, the author uses Merton's typology for modes of social adaptation. Merton's typology is useful because it affixes qualitative values to each of the modes of social adaptation described in the literature review: conformity innovation, rebellion, and ritualism. As shown in Figure 1.3, each mode is associated with either the population's acceptance (+) or rejection (-) of the external entity's goals. Similarly, each mode is also associated with the population's acceptance (+) or rejection (-) of the means by which the external entity seeks to achieve its goals. According to Merton's typology, each mode will be judged based upon the composite result of both evaluations. Therefore, for the purposes of this study, conformity will be judged when the population accepts both the goals and means of an information strategy or activity. Conversely, rebellion will be judged when the population rejects both the goals and means of an information strategy. Innovation will be judged when the population accepts an information strategy's goal, but rejects the means by which it implements it. Finally, ritualism will be judged when a population rejects an information strategy's goals, but does not resist the means by which it is implemented. Figure 1.3 summarizes how this study operationalizes the DV.

Mode	Goal	Means
Conformity	+	+
Innovation	+	-
Rebellion	-	-
Ritualism	-	+

Acceptance (+)
Rejection (-)

Figure 1.3. Population's Response to Taliban's Informational Isolation Adapted from Merton's Typology of Social Adaptation³³

D. INDEPENDENT VARIABLES

The structure and complexity of this study will require four independent variables (IV). The first IV is the Taliban's rural information strategy. The author operationalizes this variable by conducting a qualitative evaluation of the Taliban's core framing tasks: diagnosis, prognosis, and motivation. This variable is relevant because it is not possible to evaluate the degree to which the introduction of information systems into rural Pashtun communities would create a vulnerability for the Taliban without first understanding how its own information strategy impacts social adaptation.

ISAF/GIROA's expansion or introduction of a cellular phone network and radio broadcast infrastructure into rural Pashtun communities represent the second and third IVs, respectively. The selection of these two variables is relevant for two important reasons. First, since both the Taliban and ISAF/GIROA are employing these media as

³³ Merton, *Social Theory and Social Structure*, 140.

part of their respective influence campaigns, using these IVs to answer the research question will yield valuable insight into a relevant operational problem. Second, since Afghanistan's radio broadcast and cellular phone networks already represent diverse categories of infrastructural maturity, using these IVs will allow this study to develop a framework planners could use to determine the costs and benefits of expanding a wide variety of informational infrastructures. Radio broadcasts have been a fixture of Afghan culture since the 1970s and are among one of the most widely used in terms of receiving and transmitting information in rural Pashtun communities.³⁴ While radio has the longest relationship with the population of Afghanistan, cellular phone networks have rapidly generated users throughout the country, making it the most widely accessible form of two-way communication in the country. In fact, experts suggest that there could be over 10 million cell phone users in Afghanistan today, a figure that far exceeds the 4.3 million citizens who participated in the 2009 elections.³⁵

E. HYPOTHESES

The author employs each of these independent variables to test the study's three hypotheses. First, he hypothesizes that the Taliban's rural information strategy contains vulnerabilities that make it susceptible to informational exploitation. An evaluation of this hypothesis' performance is critical for this study because it will serve as the baseline from which to evaluate the degree to which GIROA/ISAF informational activities can achieve an operational advantage against the Taliban. This study's second hypothesis is that the expansion of Afghanistan's cellular phone network into rural Pashtun areas can create vulnerabilities for the Taliban. Similarly, the third hypothesis is that the expansion of Afghanistan's radio broadcast infrastructure into rural Pashtun areas can create vulnerabilities for the Taliban. An evaluation of both of these hypotheses will describe how the introduction of respective information systems will impact social adaption in rural areas of Afghanistan. Ultimately, by testing each of these hypotheses, the author can

³⁴ Andrew Skuse, "Radio, Politics, and Trust in Afghanistan," *Gazette* 64 (2002): 268.

³⁵ Gerrard Russell, "Calling All Voters," *Foreign Policy: The AFPAK Channel*, January 15, 2010, http://afpak.foreignpolicy.com/posts/2010/01/15/calling_all_voters?sms_ss=email.

compare each of the population's adaptive responses to draw substantiated conclusions about the ability of ISAF/GIROA to use information infrastructure to achieve an operational advantage over the Taliban.

F. METHODOLOGY

Since this study is evaluating rural Pashtun responses to the Taliban and ISAF/GIROA's information activities, it must incorporate factors that govern social adaptation within the target audience. Consequently, each IV in this study will be evaluated against a fixed set of relevant socio-cultural factors linked to social adaption in rural Pashtun communities. Based upon the author's survey of literature from social adaptation theory and Pashtun cultural studies, he determined that the following factors were most appropriate for this study: economic utility, informational reach, patronage, and safety.

By using an illustrative example methodology, this work shows how the expansion or introduction of different information could impact social adaptation in rural Pashtun communities and could create operational vulnerabilities for the Taliban that a skillful information strategy could exploit. To this end, this study has two primary components. First, evaluating the potential vulnerabilities that an ISAF information strategy can create for the Taliban requires an understanding of how that Taliban's current information strategy affects social adaptation within the populace. Therefore, the first component of this study shows how the Taliban's information strategy (IV#1) affects social adaptation in rural Pashtun communities, controlling for ISAF influence. Since the conformist mode of social adaptation represents a Pashtun community's complete acquiescence to external manipulation, Hypothesis 1 will be supported if this study judges the DV as innovation, rebellion, or ritualism. Figure 1.4 illustrates how the author has incorporated IV#1 and the DV into this study's influence operations framework for rural Pashtun communities (shown in Figure 1.2) to evaluate the performance of Hypothesis 1.

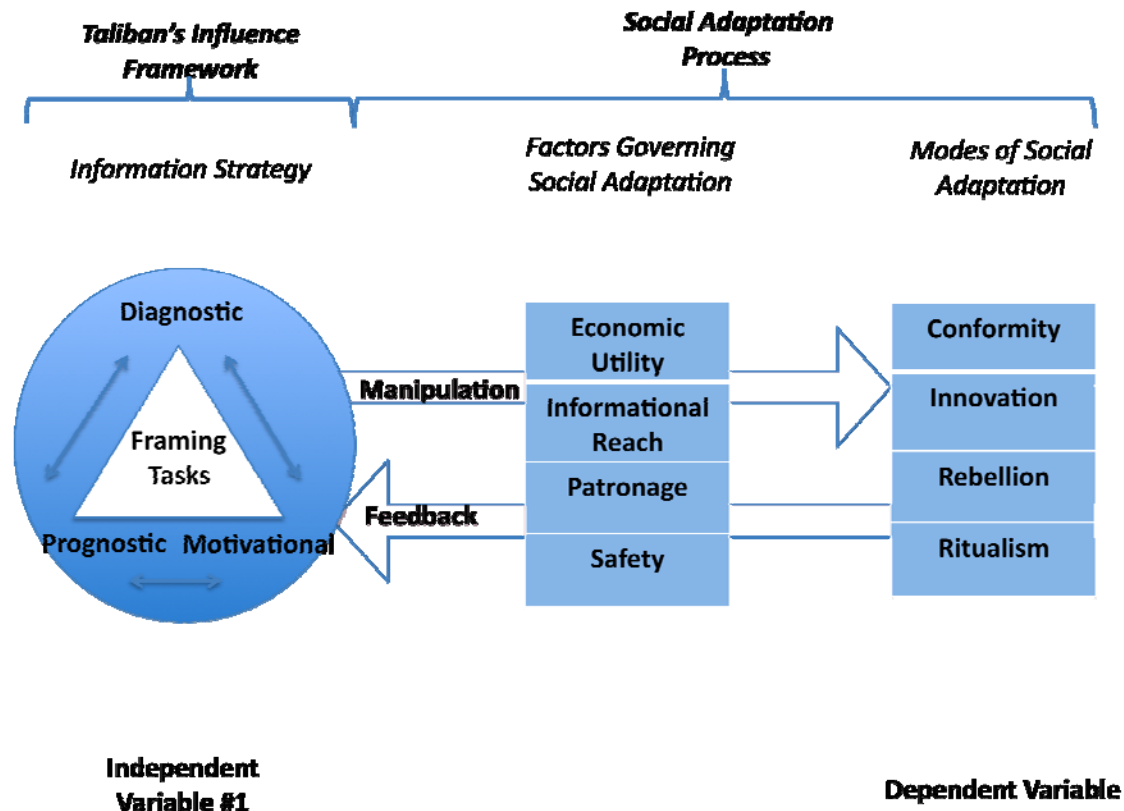


Figure 1.4. Component One: The Taliban's Information Strategy and Social Adaptation

The second component of this study evaluates the impact of the expansion or introduction of information systems infrastructure (IV #2 and 3) upon the rural Pashtun information environment. Similarly, hypotheses 2 and 3 will be supported if the expansion of the respective information infrastructure results in a mode of social adaptation closer to *conformity* than that which the Taliban achieved with its rural information strategy. Figure 1.5 illustrates how the author has incorporated the second and third IVs and the DV into this study's influence operations framework for rural Pashtun communities (shown in Figure 1.2) to evaluate the performance of the second and third hypotheses.

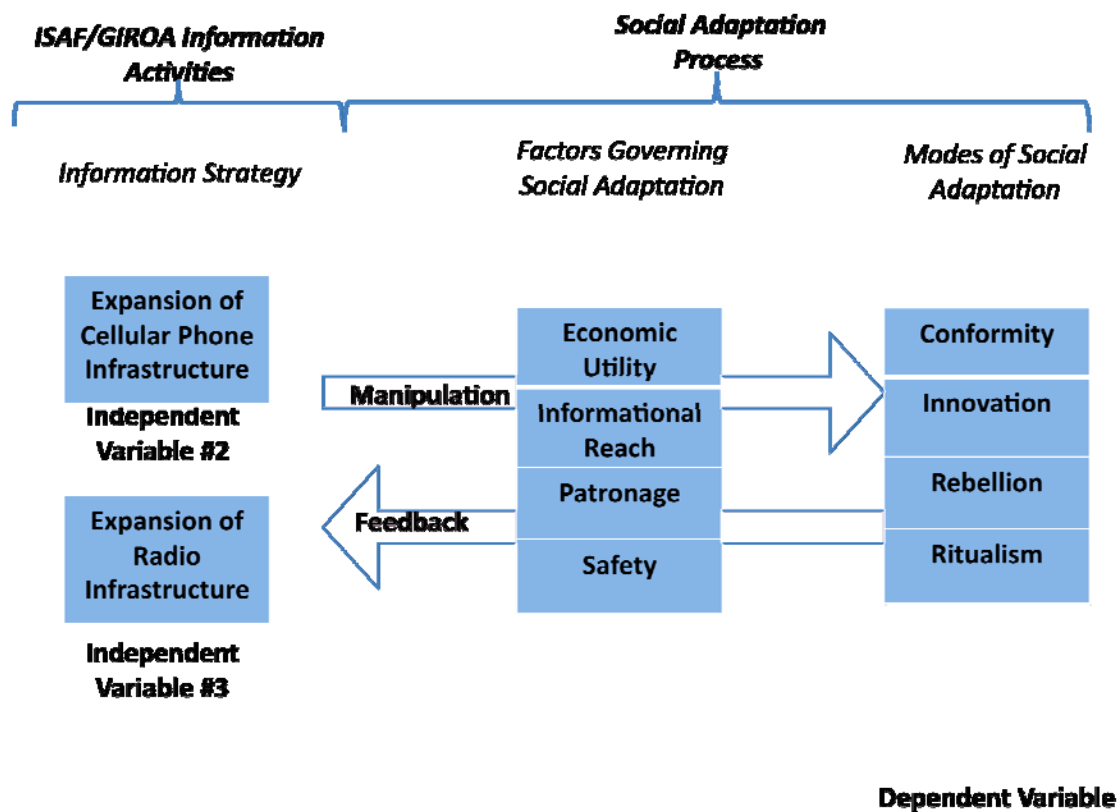


Figure 1.5. Component Two: Evaluating how Information Systems Expansion Affects Social Adaptation in Pashtun Areas

II. THE TALIBAN'S RURAL INFORMATION STRATEGY

A. OVERVIEW

The purpose of this chapter is to provide a descriptive analysis of the Taliban's rural information strategy. First, the author provides a brief historical background of the political and social developments that have informed the Taliban's strategy. Second, he describes the Taliban's rural information strategy through the framework of Merton's typology of social adaptation (described in Chapter I). This analysis serves as the foundation upon which the author, in Chapter III, evaluates the relationship between the Taliban's rural information strategy and the factors governing adaptive behavior in rural Pashtun communities.

B. BACKGROUND

The Taliban's current information strategy is best understood in historical context of history. Decades of war and instability have led to the development of an internal struggle for power in rural Pashtun society between reactionary tribal traditionalists and revolutionary militant Islamists. Consequently, in areas controlled by the Taliban, social structures do not only flow along familial lines, but also emerge from an increasingly apparent achievement-based culture.³⁶ Consequently, adaptive behavior in rural Pashtun areas today reflects tendencies from both sides of this social conflict. To provide greater context to the Taliban's rural information strategy, the author briefly discusses two components of the early-1990s Taliban rural strategy that have particular relevance today: the exploitation of its access to social endowments and the manipulation of traditional power structures.

The Taliban's emergence as an important entity in rural Pashtun communities had its roots in 1989, when warlords fought one another for power after the Soviet

³⁶ Brian Sweeney, "AN IO Perspective on Afghanistan: An Appreciation for Tribal Complexity," (presentation presented at the MORS Irregular Warfare Workshop, MacDill Air Force Base, February 4, 2010).

withdrawal.³⁷ During this time, civil strife and power politics caused community leaders to focus their energies upon accumulating power. This singularity of focus created significant distance between leaders and the large segments of the war-weary rural Pashtun population, a condition that the Taliban were quick to exploit.³⁸ Embarking upon a plan that involved disarmament and the implementation of *sharia* law, the Taliban believed that holding sway over the Pashtun would give them a base of support from which they would seize control over the rest of the country. To this end, the Taliban developed and implemented a strategic approach that mobilized rural Pashtun communities in sufficient strength to allow them to challenge the warlords.

The first factor that facilitated the Taliban's successful mobilization of the rural Pashtun areas was that it had access to social endowments that allowed it to relate to the population. Social endowments are essentially personal networks forged from common identities, ethnicities, ideologies, and linguistic traditions necessary for the formation of a strong revolutionary movement. Groups that share social endowments with the population reduce the cost of engagement since interests, language, and worldview tend to be similar.³⁹ During the 1990s, the Taliban understood and successfully manipulated these connections with rural Pashtun communities, making them the only group to mobilize rural Pashtun society successfully since 1978. On the most basic level, since the Taliban are a Sunni Muslim Pashtun organization, it comes as little surprise that it framed its narrative accordingly to influence rural Sunni Muslim Pashtun communities. For example, by remaining objective in community disputes, showing respect for *Pashtunwali*, and not appearing like an organization out to exploit the masses for economic or political gain, the Taliban appealed to the larger rural Pashtun community.⁴⁰

³⁷ Ahmed Rashid, *Taliban: Militant Islam, Oil and Fundamentalism in Central Asia* (New Haven: Yale University Press, 2010), 21.

³⁸ Neamatollah Nojumi, *The Rise of the Taliban in Afghanistan* (New York: PALGRAVE, 2002), 121.

³⁹ Abdulkader Sinno, "Explaining the Taliban's Ability to Mobilize the Pashtuns," in *The Taliban and the Crisis in Afghanistan*, ed. Robert D. Crews and Amin Tarzi (Cambridge: Harvard University Press, 2008), 59.

⁴⁰ Shehzad Qazi, "The 'Neo-Taliban' and Counterinsurgency in Afghanistan," *Third World Quarterly* 31 (2010): 488.

Sharing social endowments with the population made it easier for the Taliban to establish social networks with the population during the 1990s, an important reason for their success during that time. However, as described in Chapter I, having access to common social endowments is not the only factor that governs social adaptation in rural Pashtun communities. Again, economic utility, perceptions of safety, informational reach, and patronage are the most important factors governing adaptive behavior in these areas. The second factor that accounts for the Taliban's successful rural strategy during this time was its ability to understand community leadership structures and use its narrative to manipulate the political landscape in rural Pashtun communities. For example, during the 1990s, the Taliban's narrative altered existing leadership arrangements by marginalizing leaders within their own communities. Since tribal identities had already been weakened by years of war, ushering in an era where achievement started to matter more than inheritance, the Taliban rarely emphasized tribal themes and emphasized instead community aspirations for justice rooted in *Pashtunwali* and Islam.⁴¹

No better example of this exists than the story that emerged in 1994 of a small group of *Talibs*, acting on behalf of Singesar neighbors who claimed that a local warlord had kidnapped and raped two teenage girls. The Taliban, in response, attacked the warlord's heavily armed garrison, freeing the girls and executing the offenders.⁴² Taliban spokesmen also made frequent use of statements that the movement's goal was not to pursue political power, but to restore peace and justice to Afghanistan. These themes resonated well with war-weary communities in rural Pashtun communities and also served to confuse the Taliban's political opponents, who struggled to understand the nature of the new movement. Such informational efforts were critical not only because they encouraged followers to abandon their leaders and seek the patronage of the Taliban, but also because it created an environment of confusion that allowed the upstart organization to buy time to influence more areas across the country. Over time, the Taliban's control of the Pashtun areas in the south and east became a material and ideological support zone that proved to be critical to its campaigns in other parts of

⁴¹ Qazi, "The 'Neo-Taliban' and Counterinsurgency in Afghanistan, 489.

⁴² Rashid, *Taliban: Militant Islam, Oil and Fundamentalism in Central*, 25.

Afghanistan. Interestingly, this base of support also enabled the Taliban's eventual capture of Nangarhar province in 1996, a key event that led to the group's strategic relationship with Al-Qaeda.⁴³ The Taliban's campaign in the north and west and its provision of protection to Al-Qaeda, however, represent a series of events whose details lie beyond the scope of this study.

While the US-led offensive caused many tribes to flee the country in 2002, the Taliban successfully re-infiltrated rural Pashtun communities in subsequent years and implemented a new information strategy. As will be seen later in this chapter, while elements of its 1990s information strategy are still apparent in its current strategy, changing operational conditions have required the Taliban to make important changes to their informational approach. As Giustozzi observes, the "neo-Taliban" that reemerged in Afghanistan in 2004 used "all available networks--political, economic, social, and military--to convince the enemy's political decision makers that their strategic goals are too costly for the perceived benefit."⁴⁴ The presence of this strand of commanders and fighters is becoming increasingly apparent in Eastern and Southern Afghanistan.⁴⁵

The presence of an international coalition and an established central government in Afghanistan makes the Taliban's strategic problem quite different from the one it faced in the 1990s, forcing them to cooperate with organizations, such as Hezb-e-Islami and criminal networks to achieve its immediate objectives. Therefore, from a strategic perspective, the following considerations, what Thruelsen calls "drivers of common interests," become very important to the implementation of the Taliban's new strategy: having a common enemy in ISAF/GIROA, exploiting insecurity and corruption to achieve economic gains, and possessing historical ties and social endowments.⁴⁶ Therefore, in addition to securing rural Pashtun areas as a base of support from which to

⁴³ Nojumi, *The Rise of the Taliban*, 227.

⁴⁴ Antonio Giustozzi, *Koran, Kalashnikov, and Laptop: The Neo-Taliban Insurgency* (New York: Columbia University Press, 2007), 98.

⁴⁵ Julius Cavendish, "Afghan Taliban Hit-and-Run Tactics, Assassination Campaign," *The Wall Street Journal*, June 10, 2010, <http://www.csmonitor.com/World/Middle-East/2010/0610/Afghan-Taliban-hone-hit-and-run-tactics-assassination-campaign>.

⁴⁶ Peter Thruelsen, "The Taliban in Southern Afghanistan: A Localized Insurgency with a Local Objective," *Small Wars & Insurgencies* 21 (2010): 270.

seize control of Afghanistan, the Taliban must have incentives to sustain a functional relationship with other guerrilla movements to maintain sufficient pressure on the GIROA and the international coalition to prompt a near-term withdraw.

Another important environmental difference facing the Taliban in 2004 was the increased availability of information systems, such as the Internet, radio, and cellular phones, through which to communicate and to disseminate propaganda. As the author discusses later in this chapter, the Taliban's current information strategy is distinguishable from the one it implemented in the 1990s because today it makes good use of new media, spokesmen, and media operations to disseminate propaganda to undermine ISAF/GIROA. However, the presence of these same systems presents ISAF/GIROA and other groups with an opportunity to implement an information strategy that exploits latent or apparent vulnerabilities in the Taliban's approach. Understanding how this can happen is the purpose of this study and is discussed in greater detail in the following chapters.

Understanding the historical context and changes in environmental conditions surrounding their current position, the Taliban appear to be trying to create a stalemate with ISAF, by conducting attacks, recruiting members, inducing defections, and providing government-like services to the population to establish a base of support from which to coordinate a long-term guerrilla war.⁴⁷ As Nagl suggests, the effective informational activities that support this mode of guerrilla warfare includes the dissemination of messages through multiple channels that undermine the legitimacy and effectiveness of the established authorities.⁴⁸ The purpose of this chapter is to determine if the Taliban's informational activities supporting its "strategic stalemate" contains apparent or latent vulnerabilities that ISAF can exploit.

⁴⁷ Qazi, "The 'Neo-Taliban' and Counterinsurgency in Afghanistan," 491.

⁴⁸ John Nagl, *The U.S. Army/Marine Corps Counterinsurgency Field Manual* (Chicago: University of Chicago Press, 2007), 10.

C. INDEPENDENT VARIABLE #1: THE TALIBAN'S RURAL INFORMATION STRATEGY

Underpinning the Taliban's strategic calculus is the belief that the better part of the ISAF military campaign is complete and that the United States will soon transition to a strategy to containment against the Taliban.⁴⁹ Therefore, the Taliban's strategy seeks to do whatever is necessary to maintain its influence in areas it controls and to contain ISAF influence victories in other areas. Additionally, the Taliban seeks to sustain this effort long enough not only to prompt the withdraw ISAF forces, but also to maintain sufficient strength to seize power from the GIROA. To this end, the Taliban must complement its military operations against ISAF forces with an influence campaign that seeks to maintain its influence within areas it controls. However, the Taliban approach must overcome a series of strategic problems. As outlined in the Chapter I, the author evaluates the Taliban's rural information strategy through Bedford and Snow's three framing processes: diagnosis, prognosis, and motivation.

⁴⁹ Bradley Boetig, "The 800-Pound Gorilla: The Interrelationship of Culture, Economics, and Security in Afghanistan," *Small Wars Journal*, 2009, <http://smallwarsjournal.com/blog/journal/docs-temp/280-boetig.pdf>.

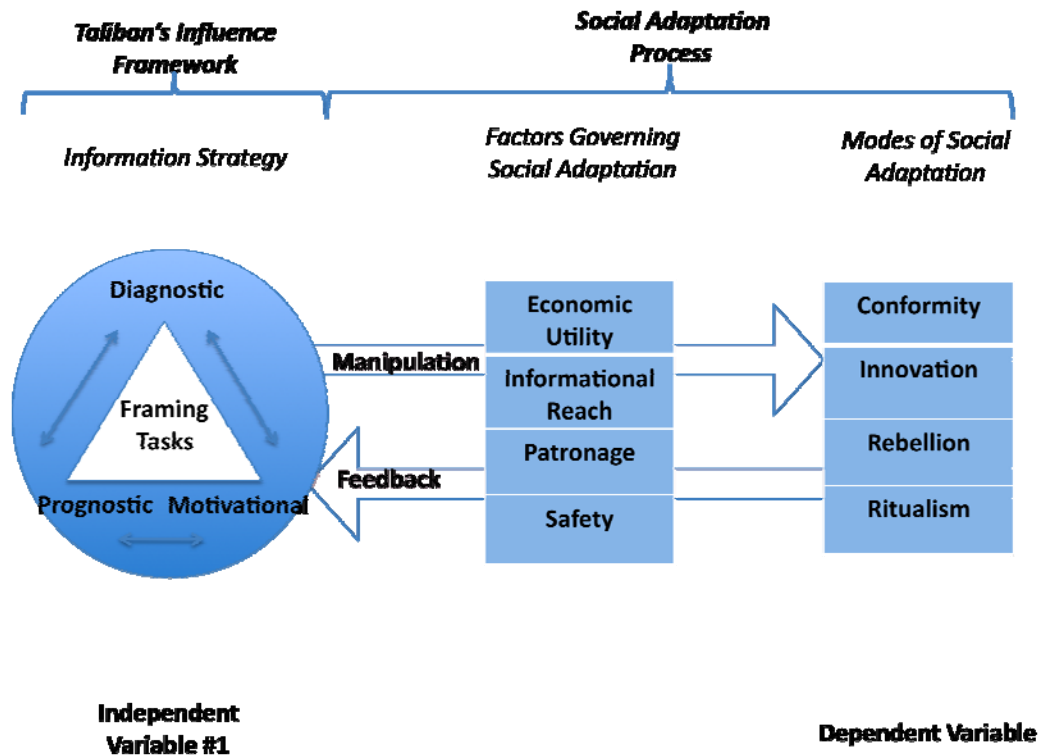


Figure 2.1. Independent Variable #1: The Taliban's Rural Information Strategy

1. Diagnosis

As described in the literature review, diagnosis is the framing task where the Taliban determines the nature of the problem it faces in controlling the population in rural Pashtun communities. Evidence suggests that the Taliban sees three problems with controlling rural Pashtun communities as a means to achieving its overall strategic goals. First, it does not have the physical means to control every rural Pashtun area directly. Second, relative to ISAF, it lacks the capacity to marshal reconstruction and economic development resources for use in its own influence operations. Third, the effective command and control of the localized guerrilla campaign, heavily reliant upon a knowledge-based infrastructure (KBI), could be degraded by ISAF targeting.

Similar to ISAF's strategy of tribal engagement, the Taliban faces the problem of having to implement a localized information strategy without enough personnel to maintain an active presence in every rural Pashtun community. To understand why this

condition is a problem for the Taliban, it is useful to discuss briefly the benefits a localized strategy brings. First, implementing this strategy in rural Pashtun areas gives the Taliban direct access to traditional, local decision-making bodies, such as *shuras* and *jirgas*. Having this access allows it to influence outcomes by offering inducements or threats of violence to gain the cooperation of the community. For example, the Taliban routinely offers protection to communities in exchange for support in the struggle against GIROA/ISAF.⁵⁰ Additionally, having a persistent, long-term presence in the community allows the Taliban to nurture these relationships. This is particularly important because, as stated in the literature review, it is not culturally inconsistent for alliances in Afghanistan to be transient. Therefore, having access to decision-making bodies gives the Taliban an important point through which to influence communities; a condition that is enabled by maintaining a local presence within rural Pashtun communities.

The second reason why local strategies benefit the Taliban is that they better exploit the patron-client relationship inherent in rural Pashtun culture. Again, having direct access to rural Pashtun communities enables the Taliban to identify local clients dissatisfied with existing patrons. With the correct offer, the Taliban has the potential to gain their support with a package of inducements or threats, which was quite apparent in the early 1990s when the Taliban, having a sophisticated knowledge of local power structures, successfully convinced many community leaders that incorporating the growing movement into existing patron-client arrangements was in their best interests. In fact, during this time, the mere threat of the Taliban's arrival often caused local leaders to reconsider existing patron-client arrangements.⁵¹ Furthermore, being embedded within the community over which the Taliban seeks to hold sway gives them a more refined assessment of what makes these inducements or threats effective, given local variables governing adaptation.

⁵⁰ Qazi, "The 'Neo-Taliban' and Counterinsurgency in Afghanistan," *Third World Quarterly* 31 (2010): 491.

⁵¹ Abdulkader Sinno, "Explaining the Taliban's Ability to Mobilize the Pashtuns," in *The Taliban and the Crisis of Afghanistan*, ed. Robert Crews and Amin Tarzi (Cambridge: Harvard University Press, 2008), 80.

Given the benefits of the localized approach, the Taliban's adoption of such a strategy is potentially problematic because it likely does not have the ability to embed fighters in every rural Pashtun community. The "neo-Taliban" is primarily comprised of decentralized and small units of fighters led by local leaders. Coordination between these leaders is typically sparse and governed by operational necessity.⁵² Compounding the limitations inherent in this condition of organizational fragmentation, the Taliban does not appear to possess sufficient numbers to control every community in rural Pashtun communities directly. Acknowledging these limitations associated with such estimates, a 2007 intelligence estimate suggests that the Taliban is capable of fielding approximately 10,000 fighters at any given time in Afghanistan.⁵³ Given that many of these fighters are committed on only a part-time basis, it is reasonable to observe that since the Taliban does not possess the capacity to control every valley and community in rural Pashtun areas directly, it must achieve this control thorough indirect means.⁵⁴ It follows, therefore, that the Taliban must carefully select the communities where its persistent presence can deliver the greatest benefit strategically.

On the surface, it appears that the Taliban has been successful to this end. Since 2002, the Taliban has demonstrated an ability to craft local alliances based upon a sound understanding of localized power politics. For example, it is common for the Taliban, seeking to expand its influence into an area, to approach village leaders marginalized by external entities, such as GIROA-backed strongmen or regional rivals. Since such leaders operate from a position of weakness, they are more likely to form alliances and share exploitable information about the local area with the Taliban.⁵⁵ For example, resulting from Karzai's post-2002 reorganization of power, the Noorzai tribe lost significant power to the Achakzais, setting off conflict in the affected areas. As the Taliban sought to regain the influence it lost at the hands of Coalition Forces (CF), it exploited this political strife

⁵² Qazi, "The 'Neo-Taliban' and Counterinsurgency in Afghanistan," 488.

⁵³ David Rohde, "Foreign Fighters of Harsher Bent Bolster Taliban," *New York Times*, October 30, 2007, <http://www.nytimes.com/2007/10/30/world/asia/30afghan.html>.

⁵⁴ Greg Bruno, "The Taliban in Afghanistan," *Council on Foreign Relations*, August 3, 2009, http://www.cfr.org/publication/10551/taliban_in_afghanistan.html.

⁵⁵ Qazi, "The 'Neo-Taliban' and Counterinsurgency in Afghanistan," 489.

by siding with the Achakzais, gaining access to a stock of recruits.⁵⁶ Still, the Taliban recognizes that there are basic problems with such an approach. At the most basic level, this leaves other rural areas largely open to the influence of GIROA/ISAF. Another possibility is that the Taliban could make a mistake, forming ill-conceived alliances with communities that yield no real benefit, or are counterproductive, ceding time and space for the GIROA/ISAF to implement effective information strategies in other areas.

The second problem facing the Taliban is that, relative to ISAF, it lacks the capacity to marshal reconstruction and economic development resources for use in their own influence operations. During the formative years of the Taliban, the organization did not see the establishment of developmental or reconstructive activities as a relevant part of its campaign. Instead, its leaders focused upon the military campaign as the primary driver to establishing a support base in rural Pashtun areas.⁵⁷

Recently, however, the Taliban has demonstrated a willingness to employ other means through which to establish control over the population. In many areas, the Taliban has established a 'shadow government' that fills important voids created by the limited ability of the GIROA to quickly and efficiently address the grievances of the population and to enforce its own laws. For example, the Taliban's willingness to serve as a fair and efficient arbiter of local disputes makes it a community asset. Being responsive (reaching arbiters is easy as making a phone call), not requiring an oath of allegiance, or demanding payment from affected parties, practices based upon Islamic principles, makes the Taliban an efficient source of justice and increases its legitimacy in the face of the populace.⁵⁸

The third problem facing the Taliban is that the effective command and control of its localized guerrilla campaign, heavily reliant upon its KBI, could be degraded by ISAF targeting. The Taliban's organizational structure reflects a generally effective way to

⁵⁶ Qazi, "The 'Neo-Taliban' and Counterinsurgency in Afghanistan," 490.

⁵⁷ Peter Marsden, *The Taliban: War, Religion, and the New Order of Afghanistan* (London: Zed Books, 1998), 45.

⁵⁸ Yochi Dreazen and Siobhan Gorman, "Taliban Regains Power, Influence in Afghanistan: Sets Up Courts, Local Governments in Southern Regions," *The Wall Street Journal*, November 20, 2008, <http://online.wsj.com/article/SB122713845685342447.html>.

balance the need to optimize efficiency through centralization and the need to adapt to local conditions through flexibility.⁵⁹ Accordingly, village cells implement their local strategies without direct guidance from higher echelons of the Taliban's leadership structure.⁶⁰ Thruelsen observes that while local network commanders conceive and coordinate day-to-day operations, the role of high-level leadership structures, such as the Quetta *Shura*, provide broad guidance through its "shadow governors" responsible for insurgent actions in their respective areas.⁶¹

Consequently, local commanders base day-to-day decisions upon their own environmental assessments and from knowledge about the local areas pooled within a KBI network. The Taliban's KBI represents the primary means through which local commanders collaborate and communicate with one another and with higher-level leaders.⁶² Shahid, Samples, and Wood provide an effective diagram representative of a Taliban's KBI in Figure 2.2.



Figure 2.2. Reporting and Direction for Conduct of Coordinated Operations⁶³

⁵⁹ Gilles Dorronsoro, "The Taliban's Winning Strategy in Afghanistan," *Carnegie Endowment*, 2009, http://www.carnegieendowment.org/files/taliban_winning_strategy.pdf, 5.

⁶⁰ Shahid Afsar et al., "The Taliban: An Organizational Analysis," *Military Review* (May 2008), http://www.humansecuritygateway.com/documents/MILREVIEW_Taliban_Organizational_Analysis.pdf, 67.

⁶¹ Thruelsen, "The Taliban in Southern Afghanistan: A Localized Insurgency with a Local Objective," 265.

⁶² *Ibid.*, 270.

⁶³ Afsar et al., "The Taliban: An Organizational Analysis."

The ISAF/GIROA's success in capturing or killing commanders who are part of this network has the potential to undermine the information strategy for three primary reasons. First, it breaks trusted and exclusive communication channels, something that takes time and effort for a new commander to establish. Second, it has the capacity to reduce the network's cumulative stock of relevant information the Taliban can exploit in its information strategy. Third, successful targeting of seasoned commanders reduces the Taliban's talent. Interestingly, Thruelsen observes that while the Taliban understands that the successful implementation of its decentralized guerrilla campaign is based upon the existence of coherent links between commanders at different levels, seamless connections are not always apparent, particularly in Southern Afghanistan.⁶⁴ Therefore, the development of responsive links seems to represent a strategic dilemma for the Taliban. While reducing the probability that ISAF will illuminate its largely hidden network, the decentralized structure does not facilitate rapid communications from senior leaders to tactical commanders.

2. Prognosis

As described in the literature review, the Taliban's second framing task is the prognosis, the process by which it decides how to deal with the problems associated with localized information strategies. To deal with the problem, the Taliban appears to have adopted an operational approach that controls these areas by isolating them. This isolation has both a physical and informational dimension and is important to understand since it enables the Taliban to control most rural regions of Southern and Eastern Afghanistan indirectly.

From an informational perspective, the Taliban has determined that disrupting and denying the rural population's access to external sources of information will yield an operational advantage. Preventing the projection of ISAF/GIROA informational activities into these areas, in the view of the Taliban, will limit the range of popular responses to its lack of presence to satisfaction with the status quo.

⁶⁴ Thruelsen, "The Taliban in Southern Afghanistan: A Localized Insurgency with a Local Objective," 257.

For example, the Taliban has recently placed restrictions upon the use of cellular phones within many of these areas as a means to limit the population's communications. At the provincial level, the Taliban sees two major problems with allowing cellular networks to operate uninterrupted. First, cell networks represent a rapid and inexpensive means through which ISAF and the GIROA can penetrate a community's information environment. By coordinating this "information blockade," the Taliban is postured to sustain an information advantage within the communities it controls because its narrative of violence would be unopposed.⁶⁵ Second, it fears that community members possessing cellular phones could provide ISAF with valuable intelligence through "tip lines." Third, the Taliban fears that beneficial reconstruction projects could cause the populace to develop positive, or at least neutral, feeling toward ISAF, GIROA, or developmental organizations.⁶⁶

A survey of open-source material suggests that in some regions of Afghanistan, the Taliban views cellular phone technology with some ambivalence. The Taliban's imposition of a nighttime ban on cell phone usage in some parts of the country appears to be a result of two operational considerations. First, it is deemed a necessary measure to prevent members of the populace from contacting ISAF "tip lines."⁶⁷ Second, Talibs likely recognize that cellular technology provides ISAF with a responsive channel for information engagement with key communicators and members of the larger populace, discussed in more detail in the following section. Simply stated, a community's inability to access external information sources leaves the Taliban's narrative of violence unchecked, making the population less likely to do accept anything other than the status quo.

⁶⁵ Martin Libicki, *What is Information Warfare?* (Washington: National Defense University, 1996), 67.

⁶⁶ Yochi J. Dreazen, "Afghan Violence Blocks Reconstruction Plan: U.S. Strategy to Spend Millions, Hire Thousands in Volatile Marjah Area in Questioned in the Wake of Taliban Action," *The Wall Street Journal*, May 16, 2010, <http://online.wsj.com/article/SB10001424052748704379004575248273266242514.html>.

⁶⁷ Yaroslav Trofimov, "Cell Carriers Bow to Taliban Threat," *The Wall Street Journal*, March 22, 2010, <http://online.wsj.com/article/SB10001424052748704117304575137541465235972.html>.

The second problem facing the Taliban is that, relative to ISAF, it lacks the capacity to marshal reconstruction and economic development resources for use in its own influence operations. Since ISAF will likely initiate a phased withdraw in 2014, the Taliban has determined that focusing its resources on efforts that undermine the GIROA will be more effective in securing the population's compliance than offering developmental inducements. Informational indicators from the rural Pashtun communities suggest that this approach is working. For example, a 2006 National Directorate of Security (NDS) survey indicates that popular support for the Taliban in rural areas, passive and active, is primarily a function of government failure. In fact, the report's conclusion offers that the most important requirement countering the Taliban in rural Pashtun areas is the development of a competent and trusted network of government and security force officials to spearhead initiatives that benefit the population.⁶⁸ This critical shortcoming is even more critical at the district level, the most visible branch of government to rural Pashtun communities. Overwhelmingly, district-level governments are dysfunctional across Afghanistan.⁶⁹ Other important factors that the Taliban exploit in rural Pashtun areas to undermine the GIROA include unemployment and anger of the death of local villagers at the hands of ISAF/ANSF (Afghanistan National Security Forces).⁷⁰ Therefore, the Taliban believes that selectively promoting disorder among the population will continue to generate discontent with the GIROA.

The third problem facing the Taliban is that the effective command and control of the localized guerrilla campaign, heavily reliant upon a KBI, could be degraded by ISAF targeting. The author uncovered no open-source evidence that suggests that the Taliban's senior leadership is loosening existing restrictions upon the use of information systems technology as a means of enhancing command and control over local commanders. As seen in the following section, in fact, available evidence suggests that the Taliban's

⁶⁸ Seth Jones, "The Rise of Afghanistan's Insurgency: State Failure and Jihad," *International Security* 32, no. 4 (2008): 34.

⁶⁹ Dorronsoro, "The Taliban's Winning Strategy in Afghanistan," 17.

⁷⁰ Seth Jones, *Counterinsurgency in Afghanistan* (Santa Monica: RAND Corporation, 2008), 41.

restrictions on the use of these systems are becoming increasingly apparent. Simply stated, the Taliban views the use of these systems as a threat to its knowledge-based infrastructure.

Instead, Taliban operational patterns suggest that the development of an appealing *jihadi* ideology represents the most effective means of guiding the decentralized implementation of local information strategies. While much of the population's support of the Taliban springs from GIROA failures, insurgent leaders appear to be largely driven by ideology.⁷¹ Since the Taliban's strategy is local, the movement's survival is dependent upon the support and commitment of its local commanders to continue to fight. Historically, the Taliban sought to sustain its traditional, rural ideology against liberal, urban values to maintain the loyalty of its local and area commanders.⁷² Recently, a new generation of fighters and commanders, educated in *madrassas* in Pakistan and Afghanistan over the past several years, has emerged. Referred to as the "neo-Taliban," these leaders, having been rigorously indoctrinated into the organization's Deobandic and rural narrative, are better equipped to independently coordinate their local campaigns within the confines of the Taliban's ideal of a *jihadi* ideology.⁷³

3. Motivation

As described in the literature review, the Taliban's third framing task is to *motivate*, the process by which it influences the population through its information strategy. For the purposes of this study, the author does not provide an exhaustive list of techniques that Taliban employs to achieve its objectives. Since 2001, the Taliban has employed a broad range of influence activities whose description would exceed the scope of this study. Instead, he only highlights those techniques the Taliban uses to confront the specific problems this study associates with the diagnosis and prognosis processes.

⁷¹ Jones, "The Rise of Afghanistan's Insurgency," 9.

⁷² Marsden, *The Taliban: War, Religion, and the New Order of Afghanistan*, 45.

⁷³ Jones, *Counterinsurgency in Afghanistan*, 39.

a. Violence and Coercion

The Taliban has historically used violence and coercion as a means to control the population, a trend likely to continue. In 1998 alone, the Taliban reportedly killed 4,000 Afghans as it sought to secure bases of support in rural Pashtun areas.⁷⁴ A recent UN report estimates that the Taliban was responsible for the deaths of 76% of the Afghan civilians killed in the first six months of 2010, an increase from 53% in 2009. Additionally, the study shows that executions over the same time period had increased by 95% since last year, a powerful indication that the Taliban's campaign of violence against the population is deliberate.⁷⁵ This data, coupled with the ISAF's recent interception of an operational directive authored by Mullah Omar ordering his commanders to execute any Afghan man or woman guilty of collaboration with ISAF, clearly shows how the Taliban integrate the use of military operations and information to instill a controlling sense of fear over the population..⁷⁶

b. Isolate Rural Pashtun Communities

The Taliban's isolation of rural Pashtun areas has both an informational and social dimension. Evidence shows that the Taliban goes to great efforts to deny the population's access to information. For example, the Taliban has actively sought to limit the population's access to the cellular phone network. Since, as described in the previous section, the Taliban considers the population's cell phone use to be an operational threat, their initial reaction has been to use coercive tactics directed at the populace and mobile service operators (MSOs).⁷⁷ For example, in some areas, the Taliban has eliminated all

⁷⁴ Kristine Eck and Lisa Hultman, "One-Sided Violence against Civilians in War: Insights from New Fatality Data," *Journal of Peace Research* 44, no. 2 (2007): 238.

⁷⁵ David Williams, "Number of Civilians Killed This Year in Afghanistan Soars by a Third to More than 1200," *The Daily Mail*, August 11, 2010, <http://www.dailymail.co.uk/news/worldnews/article-1301793/Afghanistan-civilians-killed-year-soars-1-200.html>.

⁷⁶ Sami Yousafzai and Ron Moreau, "The Mullah Omar Show," *Newsweek* <http://www.newsweek.com/2010/08/08/this-mullah-omar-show.html>.

⁷⁷ Trofimov, "Cell Carriers Bow to Taliban Threat."

cell phone communications in an area by destroying towers.⁷⁸ Additionally, it has influenced mobile service operators, such as Roshan, to shut off towers during select hours of the day, either through bribery or through threats of violence against the population.⁷⁹

Another example of how the Taliban has restricted access to the population's access to information relates to the Internet. When the Taliban controlled Afghanistan from 1996–2001, it outlawed the use of the Internet.⁸⁰ Fearing that popular access to “vulgar, immoral, and anti-Islamic” information would constitute a threat to state security, the Taliban's Ministry for the Promotion of Virtue and Prevention of Vice enforced this ban until the regime's collapse in 2001.⁸¹

However, since being driven from power by the U.S.-led coalition nearly a decade ago, the Taliban has changed its position on the Internet out of operational necessity. Understanding that they are facing a counterinsurgency effort and face the prospects of a long-term campaign to seize power, the Taliban appears to see the value of the Internet as a platform from which to shape its narrative, gain financial support, and inspire recruits.⁸²

The author found no open-source evidence that suggests that the Taliban are punishing members of rural Pashtun communities for using the Internet. Two factors suggest that the Taliban is not expressly restricting the population's use of the Internet today. First, the GIROA has enacted a series of Internet filtering policies against websites that are “immoral” and represent a threat to “traditional Afghan society.” Additionally,

⁷⁸ Norias Nori, “In Afghanistan, Mobile-Phone Towers are the Taliban's New Target,” *Radio Free Europe*, March 3, 2008, <http://www.rferl.org/content/article/1079578.html>.

⁷⁹ Trofimov, “Cell Carriers Bow to Taliban Threat.”

⁸⁰ Greg Sinclair, “The Internet in China: Information Revolution or Authoritarian Solution?,” <http://www.libertyparkusafd.org/lp/Hale/Special%20Reports/Internet%20Censorship/The%20Internet%20in%20China.pdf>, 3.

⁸¹ “Afghanistan's Taliban Bans Internet,” *Reuters*, <http://www.rawa.org/internet.htm>.

⁸² Alissa Rubin, “Taliban Using Lighter Touch to Win Allies,” *New York Times*, January 21, 2010.

these filtering initiatives do not allow Afghans to access Gmail, Twitter, Facebook, and YouTube because the GIROA considers them to facilitate Taliban operations.⁸³

Second, as discussed in greater detail in Chapter V of this study, other considerations hinder the rural population's access to the Internet. For example, impoverished members of rural Pashtun communities do not possess the capacity to pay the recurring costs of Internet service. Additionally, the growth of cyber-cafes in urban areas, such as Kandahar and Kabul, springs from a cultural preference for interpersonal interaction and group-usage of Internet Communications Technologies (ICT). Since rural Pashtun communities typically do not possess such facilities, it is unlikely that Internet usage would be widespread there.⁸⁴ Therefore, since the Taliban is now using the Internet as a system through which to disseminate propaganda, the GIROA have largely restricted its availability, and socio-economic conditions in rural Pashtun villages naturally inhibit its usage, it does not seem profitable for the Taliban to ban the use of the Internet expressly in areas in control.

The Taliban's informational blockade of rural Pashtun communities also has a social dimension. The Taliban appear to have implemented a coercive and violent strategy to weaken tribal and local structures. Since 2001, the Taliban have assassinated hundreds of tribal leaders to discourage community leadership structures from galvanizing opposition to the Taliban's local strategy.⁸⁵ From the Taliban's perspective, the primary benefit of such a strategy is that it often encourages tribal leaders to flee their communities, creating a leadership vacuum that the Taliban can exploit. For example, the Taliban recently delivered 50 "night letters" ordering tribal leaders in Eastern

⁸³ Rebekah Heacock, "Afghanistan begins Internet filtering with Gmail, Facebook," with Gmail, Facebook," *Yahoo Business and Human Rights Program*, June 28, 2010, <http://www.yhumanrightsblog.com/blog/2010/07/06/afghanistan-begins-internet-filtering-with-gmail-facebook/>.

⁸⁴ Elham Ghashghai and Rosalind Lewis, "Issues Affecting Internet Use in Afghanistan and Developing Countries in the Middle East," *RAND*, http://www.rand.org/pubs/issue_papers/2005/IP231.pdf.

⁸⁵ Abubakar Siddique, "Risks Seen in Afghan Anti-Taliban Uprising Plans," *Radio Free Europe*, February 3, 2010, http://www.rferl.org/content/Risks_Seen_In_Afghan_AntiTaliban_Tribal_Uprising_Plans/1947852.html.

Afghanistan to flee to Pakistan or face the prospects of assassination.⁸⁶ In 2009, the Taliban successfully implemented such a strategy in Pakistan, brutally suppressing tribal efforts to form *lashkars* (tribal militias). Interestingly, one reason attributed to the tribes' lack of success to this end was their inability to communicate and coordinate with other communities.⁸⁷ This example shows the benefits that the Taliban's isolation of communities can deliver in implementing its local strategy.

c. Disrupt Reconstruction and Economic Development to Undermine the GIROA

As mentioned in the previous section, the Taliban has overcome its inability, relative to its competitors, to marshal sufficient resources needed to deliver economic incentives to the population by undermining and disrupting ISAF/GIROA reconstruction efforts. The Taliban's persistent violence has been a major factor in disrupting the successful implementation of ISAF reconstruction efforts, particularly in eastern and southern Afghanistan. For example, as of May 2010, ISAF spent \$1.5 million of the \$19.5 million it committed to reconstruction and development in Marjah due to a recent surge in Taliban violence and intimidation.⁸⁸

However, evidence shows that the Taliban understand that such a strategy contains risks. Last year's Taliban "Rules and Regulations for Mujahidin," clearly shows that its provincial leadership possesses the authority in deciding to attack, capture, and destroy reconstruction equipment projects or equipment.⁸⁹ The existence of this decision-making process to regulate the effects of its operations shows that the Taliban

⁸⁶ "Leading Stories in Today's Afghan Media," *United Nations Assistance Mission in Afghanistan*, August 30, 2010, <http://unama.unmissions.org/Default.aspx?tabid=1741&ctl=Details&mid=1882&ItemID=9810>.

⁸⁷ Bill Roggio, "Anti-Taliban Tribal Militia Leader Assassinated in Pakistan's Northwest," *The Long War Journal*, July 30, 2009, http://www.longwarjournal.org/archives/2009/07/antitaliban_tribal_m.php.

⁸⁸ Yochi Dreazen, "Afghan Violence Blocks Reconstruction Plan," *Wall Street Journal*, May 16, 2010, http://online.wsj.com/article/NA_WSJ_PUB:SB10001424052748704379004575248273266242514.html.

⁸⁹ 2009 *Layeha*, <http://www.blog-info.harald-oberhem.net/resources/The+honour+code+for+Taliban+-+Layeha+2009.pdf>.

acknowledge the risks associated with alienating the populace with its policies regarding reconstruction projects. Therefore, it would be simplistic to characterize the Taliban's strategic influence objectives as purely coercive.

III. THE TALIBAN'S INFORMATION STRATEGY AND SOCIAL ADAPTATION

A. OVERVIEW

The purpose of this chapter is to describe how the Taliban's information strategy affects the factors governing social adaptation in rural Pashtun communities. Building upon the descriptive analysis provided in Chapter II of this study, the author evaluates how the Taliban's rural strategy (IV #1) positively or negatively impacts four factors governing adaptation: economic utility, informational reach, patronage, and safety. This analysis will set conditions for hypothesis testing in Chapter VII.

B. ECONOMIC UTILITY

Research supporting this study shows that with the exception of poppy cultivation in specific areas, the Taliban's information strategy does not deliver economic benefits that will improve the population's economic utility. As previously mentioned, the Taliban uses violence to isolate rural communities and undermine ISAF/GIROA's reconstruction strategy. This strategy has three target audiences. First, the Taliban frequently targets Afghans working for nongovernmental organizations (NGO) and the United Nations Assistance Mission in Afghanistan (UNAMA) to discourage their support of reconstruction projects. In 2009, the Taliban killed roughly 30 Afghans suspected of assisting NGOs.⁹⁰ Second, the Taliban use similar tactics to discourage foreigners in NGOs from completing projects. Since January 2010, the Taliban have conducted 76 attacks on NGO workers in Afghanistan, 15 of which were abductions. In turn, several NGOs have stopped applying for USAID grants, seeking support from other sources.⁹¹ Third, the Taliban destroy and deny the population's access to reconstruction projects. For example, the Taliban's cell phone policies, described in the previous section, have

⁹⁰ Dreazen, "Afghan Violence Blocks Reconstruction Plan."

⁹¹ Heather Somerville, "Is USAID Policy Risking Lives in Afghanistan?," *Politics Daily*, August 14, 2010, <http://www.politicsdaily.com/2010/08/14/usaaid-policy-endangers-charity-workers-in-afghanistan-groups-sa/>.

denied over 300,000 subscribers full-time service.⁹² Given the cellular phone network's capacity to generate economic development and jobs in Afghanistan, the Taliban's cellular phone strategy, similar to other efforts to disrupt reconstruction, will negatively impact the population's economic utility.

While the Taliban's use of violence to isolate rural communities economically could have a negative impact on economic utility in many places, in areas where poppy is grown and cultivated, its impact could be quite different. For years, Afghanistan has been the world's greatest producer of illicit opium poppies. Since seizing control of Afghanistan in 1996, the Taliban's relationship with poppy has changed in response to environmental conditions. A valuable source of *ushr* (agricultural tax) and the *zakat* (income tax) for the new regime, the Taliban initially permitted the cultivation and trade of poppy.⁹³ Increased international pressure compelled the Taliban to reverse this policy in 2000, making the cultivation of poppy illegal which, coupled with a major drought, caused a remarkable 94% decrease in Afghanistan's overall opium production. The Taliban's failure to provide alternatives caused significant hardships in rural areas previously reliant upon poppy cultivation.⁹⁴

While the Interim Government of Afghanistan's 2002 ban was similar in scope to the Taliban's just two years prior, opium production has steadily increased. As part of its reemergence in 2006, the Taliban demonstrated great strategic flexibility by reversing their position on opium production. This provided three important operational benefits. First, it allowed the Taliban to frame themselves as protectors of rural farmers suffering the oppression of the GIROA who, at the same time, was embarking upon an aggressive eradication program.⁹⁵ The second benefit is that opium is the Taliban's most important source of funding. For example, a 2008 report by the United Nations Office on Drugs and

⁹² Jason Straziuso, "Taliban Attack Afghan Cell Towers" *Associated Press Reports*, March 26, 2008, http://heraldextra.com/news/world/article_c02320e7-44c4-557c-a6fd-1b538c1d1655.html.

⁹³ "The Opium Economy in Afghanistan: An International Problem," *United Nations Office on Drugs and Crime*, http://www.unodc.org/pdf/publications/afg_opium_economy_www.pdf.

⁹⁴ *Ibid.*, 93.

⁹⁵ David Rohde, "Taliban Raise Poppy Production to a Record Again," *New York Times*, August 26, 2007, <http://www.nytimes.com/2007/08/26/world/asia/26heroin.html>.

Crime estimates that that Taliban earned approximately \$500 million from opium production in Afghanistan.⁹⁶ Finally, in light of the government's eradication efforts, the Taliban generates popular support from the friction created between the ISAF/GIROA and local farmers.⁹⁷

While poppy cultivation and production enables the Taliban to impact economic utility positively in some rural Pashtun areas, similar effects are not observed in most parts of eastern and southern Afghanistan. First, as Figure 3.1 shows, rural communities in several provinces in the Pashtun regions of eastern Afghanistan do not see economic benefits of poppy cultivation.⁹⁸ Therefore, in provinces, such as Paktika, Paktya, Khost, and Logar, predominantly rural Pashtun regions, the Taliban's economic strategy seems to have a negative impact upon economic utility.

⁹⁶ "Afghanistan Opium Survey 2008," *United Nations Office on Drugs and Crime*, https://www.unodc.org/documents/crop-monitoring/Afghanistan_Opium_Survey_2008.pdf.

⁹⁷ "Afghanistan: Farmers in the Midst of Poppy Cultivation Dilemma," *Payvand News*, January 1, 2009, <http://payvand.com/news/09/jan/1004.html>.

⁹⁸ "Afghanistan Opium Survey 2009: Summary Findings," *United Nations Office on Drugs and Crime*; "Afghanistan Opium Survey 2008," *United Nations Office on Drugs and Crime*.

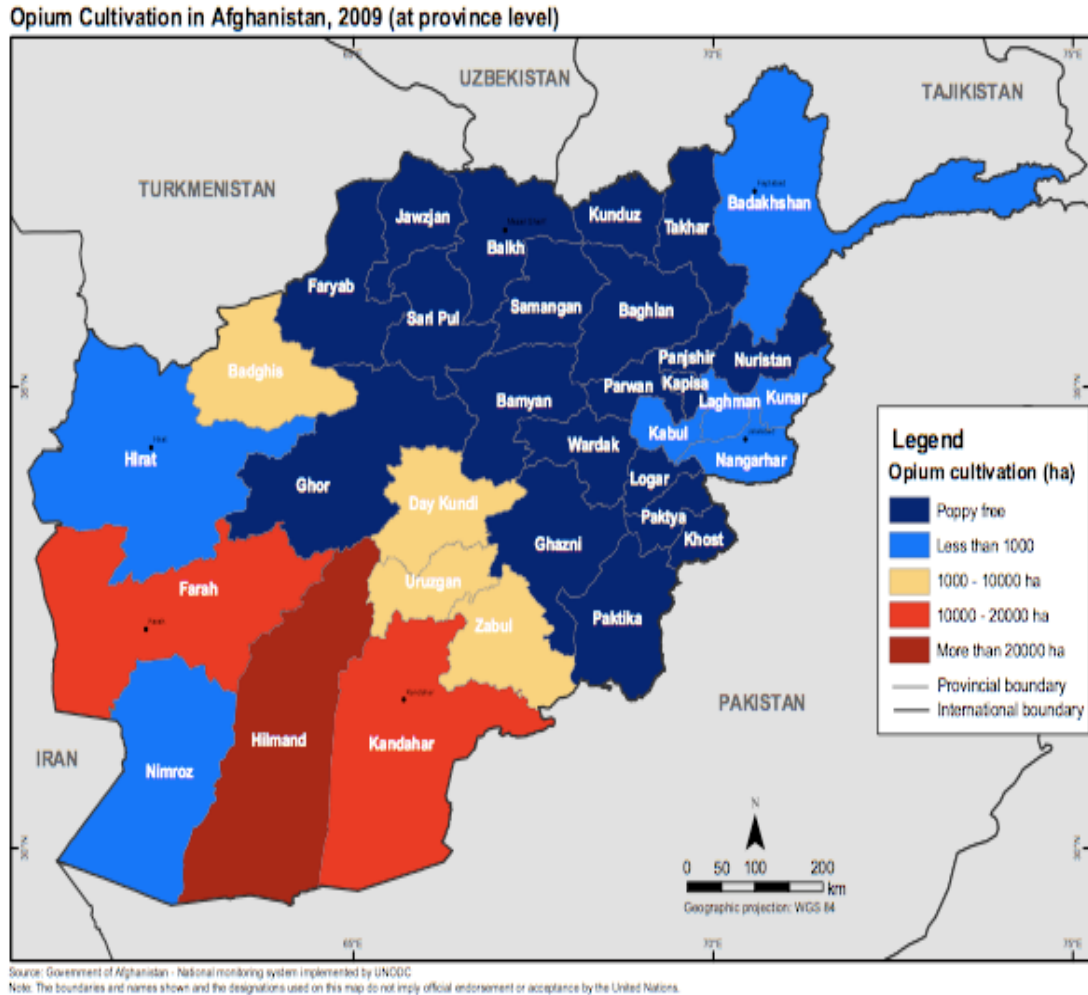


Figure 3.1. Opium Cultivation 2009 (By Province)⁹⁹

C. SAFETY

A community's sense of safety is an important variable governing social adaptation in rural Pashtun communities. While plenty of data exists that highlights the challenges of the current Afghan environment, it would be helpful to evaluate how these challenges affect decision making in rural Pashtun communities.¹⁰⁰ First, rural Pashtun populations, particularly those in areas contested by the Taliban and ISAF, are hesitant to

⁹⁹ Afghan Opium Survey 2009, *UNODC*, 5.

¹⁰⁰ "ABC News/BBC/ARD Poll: Afghanistan--Where Things Stand," *ABC News*, January 11, 2010, <http://abcnews.go.com/images/PollingUnit/1099a1Afghanistan-WhereThingsStand.pdf>, 7.

facilitate the completion of reconstruction projects out of fear of retribution. Recently, the Taliban' retributive killings against Marjah citizens participating in various community improvement initiatives have slowed the progress of reconstruction there.¹⁰¹ Additionally, many Afghans sense that ISAF's withdrawal from Afghanistan will happen soon, making any support of its efforts a risky endeavor in the face of a resurgent Taliban.¹⁰²

D. INFORMATIONAL REACH

The Taliban appears to believe that the best way to expand its informational reach into rural Pashtun communities is not through new media, but through traditional forms of communication. Face-to-face communications are central to the Taliban's information strategy. Often meeting with tribal elders, local leaders, and members of the community suspected of cooperating with ISAF/GIROA, the Taliban understand that face-to-face meetings are the most culturally relevant means of persuading the population to comply with its policies.¹⁰³

Another traditional form of communication the Taliban employs to maximize informational reach in rural Pashtun communities is the night letter (*shabnamah*). Typically, the Taliban uses night letters to deliver threatening communications to specific

¹⁰¹ David Wood, "Afghan's Fear of Reprisal Stands in the Way of U.S. Strategy," *Politics Daily*, August 8, 2010, <http://www.politicsdaily.com/2010/08/07/afghans-fear-of-reprisal-stands-in-the-way-of-u-s-strat/>.

¹⁰² Ben Farmer, "U.S. Surge Greeted with Fear by Afghans Traveling on the Road to Kandahar," *The Telegraph*, December 6, 2009, <http://www.telegraph.co.uk/news/worldnews/asia/afghanistan/6736766/US-surge-greeted-with-fear-by-Afghans-travelling-on-the-road-to-Kandahar.html>.

¹⁰³ Thomas Nissen, "The Taliban's Information Warfare: A Comparative Analysis of NATO Information Operation and Taliban Information Activities," December 2007, http://ics.leeds.ac.uk/papers/pmt/exhibits/2919/The_Talibans_information_warfare.pdf, 6.

targets or to communities as a whole.¹⁰⁴ A useful advantage that *shabnamah* gives the Taliban is that unlike most mass-produced ISAF psychological warfare (PSYOP) products, night letters are tailored to local conditions.¹⁰⁵

Another important and culturally relevant means of distributing messages to rural populations, audiocassettes have proven to be a highly effective medium through which to disseminate messages. Often incorporating songs, poetry, and framed with religious/nationalistic themes, Taliban cassette recordings have the capacity to generate audiences because they take full use of common cultural and religious connections between rural Pashtun audiences and the Taliban. As previously discussed, having access to these social endowments gives the Taliban a necessary but not sufficient advantage over ISAF when engaging the Pashtun population.¹⁰⁶

As discussed in greater detail in Chapter III, a close historical and cultural connection to radio exists in Pashtun society. Simply stated, radio is the most prevalent medium in rural Pashtun Afghanistan and the Taliban's commitment to communicating with the population is central to the effective implementation of its local information strategy.¹⁰⁷ Since less than 25% of Afghanistan's population is literate, it comes as no surprise that almost 90% of Afghan homes have radios.¹⁰⁸ Consequently, the Taliban's clandestine FM radio platforms are custom-made for their localized information strategy. Costing only \$200 (transmitter, amplifier, and car battery), the clandestine radio stations are a cost-effective way of disseminating short-range propaganda across rural and

¹⁰⁴ "Taliban Propaganda: Winning the War of Words?," *International Crisis Group*, July 24, 2008, (http://www.crisisgroup.org/~media/Files/asia/south-asia/afghanistan/158_taliban_propaganda_winning_the_war_of_words.ashx, 12.

¹⁰⁵ Nissen, "The Taliban's Information Warfare: A Comparative Analysis of NATO Information Operation and Taliban Information Activities," 6.

¹⁰⁶ "Taliban Propaganda: Winning the War," 16.

¹⁰⁷ "Pakistan's Radio Insurgency," *BBC World Service*, June 22, 2009, http://news.bbc.co.uk/2/hi/south_asia/8108881.stm.

¹⁰⁸ Nissen, "The Taliban's Information Warfare: A Comparative Analysis of NATO Information Operation and Taliban Information Activities," 9.

illiterate villages.¹⁰⁹ Additionally, since many villages in rural areas have few, if any, sources of electrical power, battery-operated or crank-handled emergency FM radio receivers are sometimes the only viable source of external information.¹¹⁰

Given these considerations and a historical record of success, it is easy to see how FM radio is important to the Taliban's local information strategy. The Taliban were successful in generating audiences in rural Pashtun communities in Pakistan's Swat Valley by inciting fear through makeshift FM radio platforms. For example, the Taliban routinely issued decrees against individuals and issued summons to trial under *Sharia* Law through FM radio. When the members of the population failed to appear before the Taliban's court, local fighters executed them or members of their family.¹¹¹ Consequently, this incentivized listenership in local villages, making the Taliban's radio broadcasting a very important fixture of daily life in rural Swat villages.¹¹²

Similarly, in rural Pashtun Afghanistan, the Taliban have employed makeshift FM radio platforms to disseminate many of these same themes to generate local audiences. Since 1996, the Taliban used radio to disseminate sermons and propaganda in eastern and southern Afghanistan as a means through which to control the population.¹¹³ After 2001, in an effort to localize its radio campaigns while avoiding ISAF detection, the Taliban have become increasingly reliant upon mobile, makeshift radio stations. Recent estimates show that as many as 150 of these Taliban stations operate in the Pashtun tribal areas of Pakistan and Afghanistan.¹¹⁴ Aside from giving the Taliban a platform from which to disseminate messages, these mobile stations provide an important psychological benefit. Since these stations have a range of about 2 km, the dissemination of messages serves to

¹⁰⁹ Mukhtar Khan, "FM Mullahs Spread the Taliban's Word," *Asia Times Online*, June 4, 2009, http://www.atimes.com/atimes/South_Asia/KF04Df02.html.

¹¹⁰ Dawood Azami, "Pakistan's Taliban Radio Insurgency," *BBC*, June 22, 2009, http://news.bbc.co.uk/2/hi/south_asia/8108881.stm.

¹¹¹ Khan, "FM Mullahs Spread the Taliban's Word."

¹¹² Richard Oppel, "In Pakistan, Radio Amplifies Terror of Taliban," *New York Times*, January 24, 2009, <http://www.nytimes.com/2009/01/25/world/asia/25swat.html>.

¹¹³ Pam O'Toole, "Taleban Radio Station Back on Air," *BBC*, June 21, 2007, http://news.bbc.co.uk/2/hi/south_asia/6224972.stm.

¹¹⁴ Tom Shanker, "U.S. Plans a Mission against Taliban's Propaganda," *New York Times*, August 15, 2009, http://www.nytimes.com/2009/08/16/world/asia/16policy.html?_r=2.

remind the population that the Taliban are operating in the area and have the ability to respond quickly to any signs on non-compliance. Similar to night letters, these stations are important to the Taliban because they are the perfect tools through which to achieve near-term psychological warfare objectives in rural areas it does not directly control.¹¹⁵

Its repressive cellular phone policy notwithstanding, the Taliban have exploited cellular phone networks as a platform from which to disseminate propaganda and threatening messages. As discussed in greater detail in Chapter IV, the cellular phone industry in Afghanistan is the most rapidly growing sector of the nation's economy. Currently, there are over 10 million cellular phone network customers in Afghanistan, a figure that has rapidly increased since the 2002 introduction of the networks into the country. Experts predict that the country will continue to see growth in this sector in the coming years.¹¹⁶ Additionally, Afghanistan's Global Systems for Mobile Communications (GSM) provides coverage to many Pashtun areas in eastern and southern Afghanistan (Figure 3.2).

Since the 2002 establishment of the cellular network in Afghanistan, the Taliban have largely limited the use of this messaging platform to send threatening texts.¹¹⁷ However, reports that the Taliban have used cellular phones to send threatening voice phone calls to influential tribal elders also exist. Given low levels of literacy in rural Pashtun areas, voice messages will be effective in rapidly influencing decision makers.¹¹⁸ Recently, the Taliban have increasingly sent such messages to members of the populace in Kandahar to discourage cooperation with ISAF and GIROA forces they expect will

¹¹⁵ "Taliban Propaganda: Winning the War of Words?," *International Crisis Group*, July 24, 2008, http://www.crisisgroup.org/~media/Files/asia/south-asia/afghanistan/158_taliban_propaganda_winning_the_war_of_words.ashx, 8.

¹¹⁶ "Afghanistan Sees Record Quarterly Net Subscriber Growth," *Cellular-News*, <http://www.cellular-news.com/story/38247.php>.

¹¹⁷ "Report: Taliban Text Message Threats," *USA Today*, July 24, 2008, http://heraldextra.com/news/world/article_c02320e7-44c4-557c-a6fd-1b538c1d1655.html.

¹¹⁸ Josh Motlagh, "Why the Taliban is Winning the Propaganda War," May 3, 2009, <http://www.time.com/time/world/article/0,8599,1895496,00.html>.

increase their presence in the city.¹¹⁹ Additionally, the Taliban have employed “jihadi ringtones” to inspire fighters and enhance recruiting in Pakistan and Afghanistan.¹²⁰

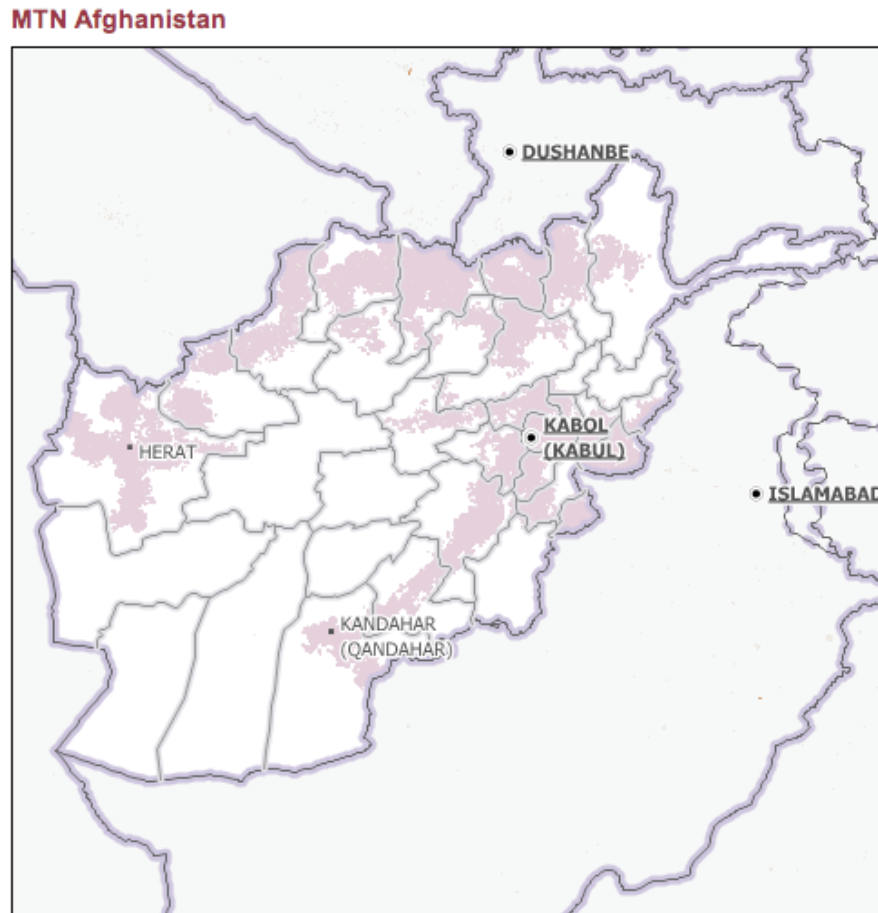


Figure 3.2. GSM Coverage Afghanistan, 2010¹²¹

Given the size of Afghanistan’s cellular phone network and its potential for increased growth, the Taliban’s use of GSM technology to distribute propaganda

¹¹⁹ Laura King, “Afghan City Fears Greater Taliban Presence,” *Los Angeles Times*, April 14, 2010, <http://articles.latimes.com/2010/apr/14/world/la-fg-kandahar-fear14-2010apr14>.

¹²⁰ “Terror and Technology, Taliban Uses Text Messages, Ringtones to Spread Terror,” *Santosh*, July 28, 2008, <http://uberdesi.com/blog/2008/07/28/terror-and-technology-taliban-uses-text-messages-ringtones-to-spread-terror/>.

¹²¹ “Afghanistan: Coverage and Network Information,” *GSM World*, <http://www.gsmworld.com/roaming/index.html>.

represents an effort to improve its informational reach to the population. However, the author's research uncovered no evidence that the Taliban uses cellular phone technology to disseminate public information or create economic development opportunities for the populace. Considered with the Taliban's imposition of usage restrictions upon the population, these aspects of the Taliban's strategy partially offset this gain because they reduce economic utility. The degree to which this condition benefits or hurts the Taliban is discussed in greater detail in Chapter IV.

Research in support of this study shows that the Internet is not an important part of the Taliban's localized information strategy in rural Pashtun communities. While the neo-Taliban have embraced the Internet as a channel through which to undermine the GIROA, disseminate propaganda, conduct recruitment activities, and support senior leadership communications, it has not used the web as a tool to influence target audiences in rural Pashtun communities. As previously mentioned, high rates of illiteracy and a lack of consistent power sources conspire to make the rural information environment not susceptible to web-based influence operations.¹²²

An important relationship also exists between honor/shame and a community's need for information. While variables governing a community leader's sensibilities are dependent upon local conditions, broad aspects of the Taliban's information strategy can have both a positive and negative effect upon rural Pashtun senses of honor/shame. First, as discussed in the previous section, the Taliban's strategy of isolation has the potential to impact a leader's sense of honor negatively. For example, Thruelsen observes that the prestige and honor of Pashtun leaders and the Taliban is built upon access to information and networks.¹²³ According to McAllister, formal and informal communications networks represent the means through which tribal elders typically communicate with one another and with external entities. Interestingly, he suggests that back-channel communications are used to pass sensitive information between leaders when they believe formal communications networks have been compromised or are not supporting

¹²² "Taliban Propaganda: Winning the War," 9.

¹²³ Thruelsen, "The Taliban in Southern Afghanistan: a Localized Insurgency with a Local Objective," 270.

the delivery of messages to intended targets for coordinated action.¹²⁴ Since, as described in Chapter I, a community leader's status is governed by his ability to provide services for the community and because it is not culturally inconsistent for inter-tribe allegiances to morph into segmentation, the Taliban's informational isolation of rural areas has the potential to impact a community leaders' sensibility of honor/shame negatively.

E. PATRONAGE

The Taliban's information strategy appears to have a positive impact upon the establishment of patronage networks it needed to control rural Pashtun communities, particularly in areas where ISAF/GIROA presence is sparse. As identified earlier in Chapter I, the patron-client relationship is the basis of many strategic alliances in Afghanistan. Since 1994, the Taliban has gained the cooperation of many villages in exchange for services, such as protection and economic benefits. Given the number of social endowments the Taliban share with rural Pashtun communities, they possess an important advantage in establishing these networks.

However, a few factors constrain the Taliban's ability to manipulate kinship networks in rural Pashtun areas as a means to influence the population. First, a key characteristic of such arrangements is that they last only as long as the patron is capable of providing the service.¹²⁵ This point seems valid since, as explained in Chapter I, alliances within rural Pashtun tribal structures are fluid. Therefore, the only permanent characteristic of patronage networks in these communities is the framework through which services and resources flow. Second, Thruelsen observes that while each area is unique, as a general rule, the Taliban do not adopt this practice in areas directly contested by ISAF/GIROA. Instead, the Taliban emphasizes its strategy of violence and coercion to gain at least the passive support of the population. Conversely, the Taliban typically enter into patronage agreements with the population in areas where ISAF forces seldom

¹²⁴ William McAllister, "COIN and Irregular Warfare in a Tribal Society," *Small Wars Journal*, October 7, 2007, <http://smallwarsjournal.com/documents/coinandiwinatribalsociety.pdf>.

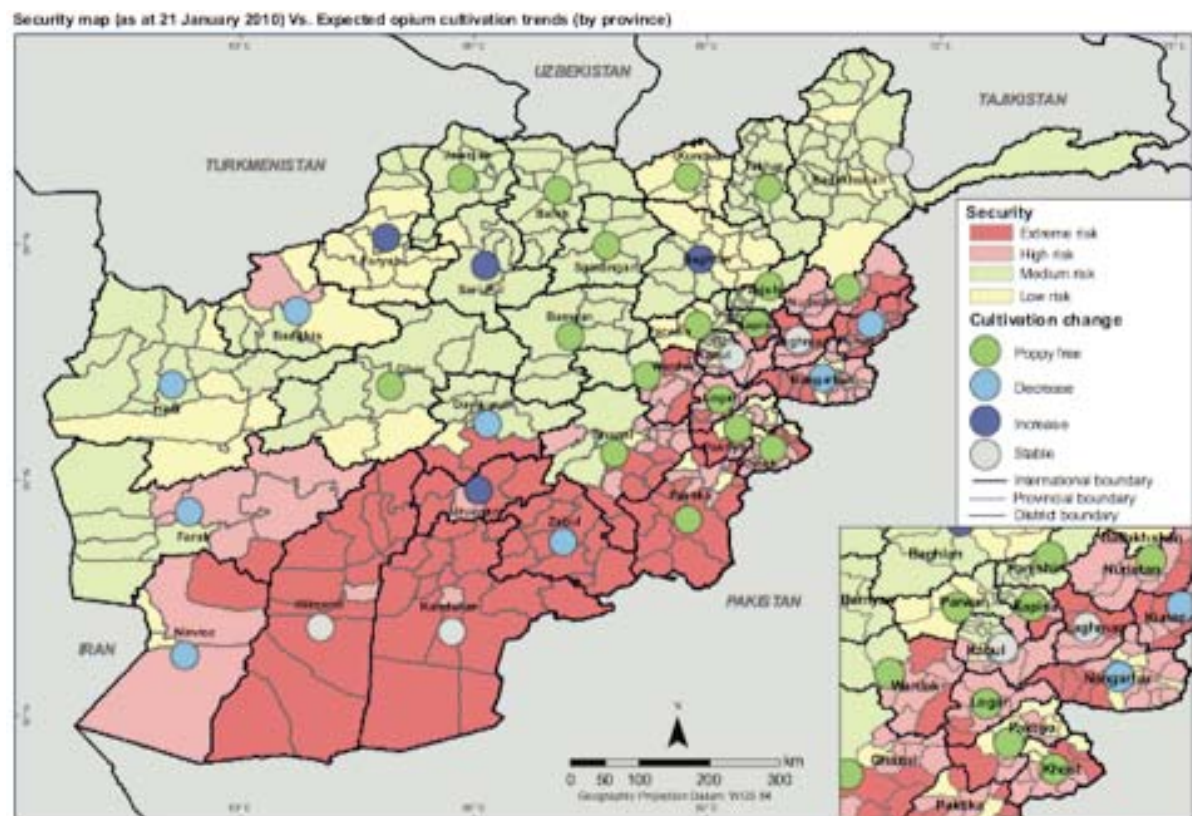
¹²⁵ *Ibid.*, 16.

operate.¹²⁶ Time appears to be the critical factor that explains this distinction. McAlister observes that patron-client relationships, even under perfect conditions, take time to develop in Afghanistan largely because they require multiple meetings and confidence building measures.¹²⁷ A persistent ISAF/GIRO presence could inhibit the Taliban's freedom of movement in an area, making it more difficult for them to conduct enough negotiations with community leaders that lead to the establishment of a patron-client relationship. Third, with the important exception of the poppy trade, the Taliban's information strategy does not appear to have a positive impact economically in rural Pashtun communities.

Therefore, the Taliban's information strategy will likely have a positive impact on the establishment of a patronage network in areas marked by high levels of poppy cultivation/production and low levels of ISAF activity. As the UNODC's 2010 Winter Rapid Assessment shows (Figure 3.3), most areas of Pashtun Afghanistan have non-permissive security environments and only three provinces (Helmand, Kandahar, and Laghman) are not "poppy free." Even in these environments, there are no guarantees that the Taliban's alliances based upon patronage are permanent or grounded in ideology. Instead, the evidence presented thus far in this study suggests that the most important considerations affecting the maintenance of patron-client relationships are security and economic utility.

¹²⁶ Thruelsen, "The Taliban in Southern Afghanistan: a Localized Insurgency with a Local Objective," 270.

¹²⁷ McAllister, "COIN and Irregular Warfare in a Tribal Society," 16.



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IV. EXPANSION OF CELLULAR PHONE NETWORK

A. OVERVIEW

The purpose of this chapter is to describe how the expansion or introduction of a cellular phone network will impact social adaptation in Afghanistan's rural Pashtun communities. First, the author briefly describes the state of the cellular phone network in Afghanistan. Second, he evaluates how this study's recommended expansion of the cellular phone network into rural Pashtun communities (IV #2) might positively or negatively impact the four factors governing adaptation: economic utility, informational reach, patronage, and safety. This analysis set conditions for hypothesis testing in Chapter VI.

B. INDEPENDENT VARIABLE #2: CELLULAR PHONE NETWORK INFRASTRUCTURE

Since 2002, the growth of cellular phone technology in Afghanistan has been a notable developmental success. Today, there are an estimated 12.5 million cellular phone users in Afghanistan, a figure that lies just below half of the population.¹²⁹ A 2009 Asia Foundation study shows that in Afghanistan, 44% of rural homes possess at least one cell phone. Similarly, this same study shows that 11% of Afghans report that they receive news and information by SMS at least once per week. A World Bank study shows that the projected market for mobile applications in all forms could be \$30 million by 2015, a figure that policy analyst Siddharta Raja suggests is conservative.¹³⁰

As explained in Chapter III, cellular phone networks represent both an asset and a liability to the Taliban. While cellular phones provide the Taliban with a means by which to communicate, their imposition of a nighttime ban on usage in some parts of the

¹²⁹ Priya Ganapati, "Phones, Calculator Give a Glimpse of Mobile Tech in Afghanistan," *Gadget Lab*, August 30, 2010, <http://www.wired.com/gadgetlab/?p=47179>.

¹³⁰ Siddharta Raja, "Panel III: Mobile Phones and Peacebuilding in Afghanistan," *United States Institute for Peace*, June 24, 2010, <http://www.usip.org/newsroom/multimedia/video-gallery/panel-iii-mobile-phones-and-peacebuilding-in-afghanistan>.

country appears to be a result of two operational considerations. First, it is deemed a necessary measure to prevent members of the populace from contacting ISAF “tip lines.”¹³¹ Second, it likely recognizes that cellular technology provides ISAF with a responsive channel for information engagement with key communicators and members of the larger populace. Since the Taliban considers these vulnerabilities to be an operational threat, its initial reaction has been to use coercive tactics directed at the populace and mobile service operators to limit cellular phone use.¹³² The author uncovered no research data that described the means by which the Taliban detects violations of its cellular phone usage bans. However, it is reasonable to conclude that since the Taliban’s local cells live among the population, they could observe community members flouting bans. At the local level, this will result in threats and violence. As local cells report patterns of misconduct through the Taliban’s network of commanders (discussed in chapter II), higher-level coercion of mobile service companies will likely follow.

From the perspective of the GIROA, ISAF, and NGOs, the expansion of cellular phone infrastructure represents an opportunity to bring economic and social benefits to the population. As described in more detail later in this chapter, from an economic perspective, cellular phone networks can generate and circulate cash. For example, the implementation of mobile banking (m-banking) program has the potential to provide improved access to cash for the poorest members of the communities.¹³³ From a social perspective, cellular phones transmit information that creates and reinforces social networks. Additionally, other social benefits of cellular phone networks include having responsive means by which to transmit and receive public information between the government. As shown in the following sections, market pricing, farming reports,

¹³¹ Yaroslav Trofimov, “Cell Carriers Bow to Taliban Threat,” *The Wall Street Journal*, March 22, 2010, <http://online.wsj.com/article/SB10001424052748704117304575137541465235972.html>.

¹³² Ibid.

¹³³ Indira A. R. Lakshmanan, “Mobile Phones Combat Taliban’s Afghan ‘Information Wastelands,’” *Bloomberg Businessweek*, March 22, 2010, <http://www.businessweek.com/news/2010-03-22/mobile-phones-combat-taliban-s-afghan-information-wastelands-.html>.

weather, medical advice, and emergency broadcasting represent a mere fraction of the types of public information programs that can facilitate development and help a community function.

C. ECONOMIC UTILITY

Dispersed communities linked by poor communications and sparse transportation infrastructure create inefficiencies in market functions that preclude the poorest of the poor from ever realizing real profit.¹³⁴ Simply stated, market information drives effective decision making for every entity along a supply chain including farmers and consumers. As seen in Chapter II, the Taliban's information strategy is built upon the need to isolate communities. Therefore, for cellular phone networks to increase economic utility in rural Pashtun communities, it would have to break the Taliban's informational "blockade."

Cellular phone-base economic development programs have been implemented in other countries to help community members break out of economic isolation. For example, Manobi, in coordination with the Senegalese Ministry of Agriculture, has implemented a cellular phone-based delivery system that disseminated pricing information on fruits and vegetable.¹³⁵ Similarly, Esoko coordinates programs that provide information about the cost of agricultural goods for farmers and traders wanting to buy or sell commodities in Rwanda.¹³⁶ Both of these systems have helped farmers in these respective regions obtain better prices for their crops.

Similar programs could have like effects in rural Pashtun communities, almost all of which have agrarian economies or are reliant upon distant markets for food purchases. In fact, some Afghan farmers are already using cell phones to check market prices before making the trip into town.¹³⁷ To expand this service to more areas, Roshan and the U.S.

¹³⁴ Khanjan Mehta et al., "Cell Phones and Social Networks: Defining New Opportunities and Discovering Champions for Entrepreneurial Ventures in Developing Countries," http://www.cedcc.psu.edu/khanjan/CellphonesAndSocialNetworks_NCIA.pdf, 5.

¹³⁵ "Manobi launches in Senegal a Free-Access SMS Market Information Service," <http://www.manobi.sn/sites/za/index.php?M=9&SM=20&Cle=54>.

¹³⁶ Esoko_{beta}, <http://www.esoko.com/#lang=en>.

¹³⁷ "Fighting the Taliban, One Text Message at a Time," March 26, 2010, <http://afghanistan.blogs.cnn.com/2010/03/26/fighting-the-taliban-one-text-message-at-a-time/>.

Government have partnered to create a national price information system providing farmers, brokers, intermediaries, and wholesalers with access to market information on 25 commodities in 11 Provinces.¹³⁸

There are two important benefits of such a program. First, given the expense of fuel and security concerns associated with movement in rural Pashtun areas, travelling to market brings considerable overhead costs for isolated communities. Price information programs reduce unnecessary trips to market and reduce overhead because the only cost incurred is price of making phone call or sending a text message. Second, by giving Pashtun famers and consumers timely access commodity prices, they naturally have more leverage during price negotiations.

There are also important limitations inherent to implementing such programs in rural Pashtun communities. First, according to United States Agency for International Development representative Margaret Orwig, while this program generates about 1,400-1,500 SMS messages on a bi-weekly basis in Afghanistan, the overwhelming majority of these messages are between a relatively small number of traders.¹³⁹ Consequently, under current conditions, it is unlikely that farmers in rural Pashtun communities would realize the benefits of this program. A possible workaround for this problem would involve implementing a local scheme that not only informs farmers about the program, but also guides them through the entire process, helping them realize the benefits first-hand. Such an approach would have to be done through intermediaries or a trained core of community members who could oversee progress. Another important limitation, illiteracy, is discussed later in this section.

Other cellular phone-based programs have the capacity to increase economic utility in rural Pashtun communities by increasing the population's accessibility to cash. For example, m-banking has the potential to make the repayment of micro-loans and the

¹³⁸ "Roshan and USG Partners Launch Malomat, National Commodity Information System in Afghanistan," *PR Newswire*, September 7, 2010, <http://www.prnewswire.com/news-releases/roshan-and-usg-partners-launch-malomat-national-commodity-information-system-in-afghanistan-102344569.html>.

¹³⁹ Margaret Orwig, "Panel III: Mobile Phones and Peacebuilding in Afghanistan," *United States Institute for Peace*, June 24, 2010, <http://www.usip.org/newsroom/multimedia/video-gallery/panel-iii-mobile-phones-and-peacebuilding-in-afghanistan>.

distribution of payments easier than other options available to the population in some “unbanked” areas. Current programs in Afghanistan include M-PESA, a mobile phone-based currency transfer that has been used in the country since 2008. While the primary benefit of this program is to increase liquidity within rural communities, another advantage is that it allows users to transmit or receive money for any reason, reducing the risks and costs associated with transportation. Additionally, it makes it easier for the population to access and pay-off micro-finance institutions (MFI) and settle debts with small businesses serving as M-PESA agents. An example of a small business M-PESA agent currently operating in Afghanistan includes Roshan vendors, whose customers can purchase mobile phone minutes remotely. This technology also has potential relevance for users seeking access to vendors in distribution networks, such as petrol stations, supermarkets, and other small businesses.¹⁴⁰

M-banking can also help members of rural Pashtun communities to see more money than current money transfer schemes permit. First, M-PESA allows the user to bypass extra charges associated with the *hawala* system, which can range anywhere from 5%–15%.¹⁴¹ Second, moving cash through cellular phones has the potential to cut off corruption chains marred by kickbacks and skimming. The direct distribution of cash to the user bypasses these chains, allowing people at the end of the chain to realize greater financial benefit.

This program is particularly relevant for the distribution of salaries and has already been implemented in parts of Afghanistan. For example, a joint anti-corruption initiative between the Combined Security Transition Command- Afghanistan (CSTC-A), the Ministry of Finance (MoF), and the Ministry of Interior (MoI) recently concluded a nine-month trial period where 53 Afghan National Police (ANP) successfully received salary distributions at the beginning of the monthly pay period. The MoI later expanded this service to ANP units in Wardak and Khost Provinces, paying an additional 204

¹⁴⁰ “M-PESA: How it Works,” *The 411: Ideas into Action, Action into Service*, November 17, 2008, <http://kipsang.wordpress.com/2008/11/17/m-pesa-how-does-it-work/>.

¹⁴¹ Matthew Rosenberg, “Corruption Suspected in Airlift of Billions in Cash from Kabul,” *The Wall Street Journal*, June 25, 2010, <http://online.wsj.com/article/SB10001424052748704638504575318850772872776.html>.

police officers by cellular phone.¹⁴² This service negates the use of ANP trusted agents that physically move cash from banks at provincial capitals to distribution centers at district offices, a critical node in the chain of corruption. Another interesting application of this program could involve paying tribal militia (*arbakai*) as part of a Village Stability Program. Historically, government salary distributions to *arbakai* have been unreliable and irregular.¹⁴³ Possessing a routinized payment program would not only sustain the morale of the *arbakai*, but would reduce the probability that the militia would steal from the population.

Another variation of the m-banking platform is through electronically topping up (E-TOPUP) usage balances. Specifically, this occurs when users can transfer cash credits from their pre-paid account balance to other phones via SMS or Unstructured Supplementary Service Data (USSD).¹⁴⁴ Interestingly, this capability has created a growing new trade economy in countries like Bangladesh, Nigeria, South Africa, and the Philippines. Roshan already has this program operating in Afghanistan.¹⁴⁵ This platform could be particularly useful for rural Afghans heavily reliant upon credit at the bazaar. Typically, rural Afghans are unable to stock food, fuel, and fodder and are reliant upon credit to sustain their families during seasonal food shortages. In Afghan culture, the best measure of creditworthiness is the borrower's reputation for making timely payments.¹⁴⁶ Having the ability to pay the creditor using the e-topup platform or m-banking allows the borrower to pay the creditor on time without having to leave the village.

Again, these platforms carry important limitations. First, the cost of mobile phones could be prohibitive for Afghan households, whose average yearly income is

¹⁴² Sarah Brown, "Fighting Corruption by Paying Afghan Police Electronically," *NATO Training Mission and Combined Security Transition Command*, May 3, 2010, <http://www.ntm-a.com/news/categories/police/588-corruption-paying-off-afghan-police?lang=>.

¹⁴³ Thomas Ruttig, "Militai Sightings," *Afghan Analyst Network*, September 29, 2009, <http://aan-afghanistan.com/index.asp?id=485>.

¹⁴⁴ "Technology Spotlight: Flexible Recharging Based Solution for Rapid Service Regeneration and Revenue Acceleration," *Telpin Software*, <http://www.telepin.com/pdf/TS-eTopUp3.pdf>.

¹⁴⁵ Roshan, <https://www.etopuponline.com/roshan/>.

¹⁴⁶ Flortje Klijn, "Informal Credit Practices in Rural Afghanistan," *Afghanistan Research and Evaluation Unit*, February 2007, http://www.areu.org.af/index.php?option=com_content&task=view&id=41&Itemid=86.

approximately \$300.¹⁴⁷ The author's research shows that the average cellular phone and SIM card in Afghanistan costs between \$11 and \$30.¹⁴⁸ For the poorest members of rural communities, this represents a significant investment. Second, as seen with price information programs, these applications require the user not only to understand how to use the hardware, but also to understand how the overall program can bring benefits. Third, as Jay Schaffner, DoD Senior Advisor for Science and Technology suggests, a population unfamiliar with this technology is vulnerable to the criminal commoditization of information.¹⁴⁹ For example, criminal networks or corrupt intermediaries could use social engineering techniques to manipulate financial transactions. Clearly, such activity could undermine cellular phone money transfer platforms.

These limitations can be partially mitigated by a combination of technical and educational solutions. First, a technical solution would be to secure mobile money with "Know Your Client" (KYC) and digital encryption to ensure payments are matched with correct recipients.¹⁵⁰ For example, some KYC encryption schemes involve user passwords to transmit money and to access balances. Others include programming varying levels of user rights for different actions.¹⁵¹ However, as the author discusses in the next section, advanced user applications are difficult to implement in rural Afghan communities because of illiteracy and related low levels of technical competence.

¹⁴⁷ Mark Memmott, "Afghans Can See Progress since the Fall of the Taliban," *USA Today*, July 8, 2003, http://www.usatoday.com/news/world/2003-07-07-afghanistan-usat_x.htm.

¹⁴⁸ Christopher Beam, "Does Afghanistan Have Phone Books?," *Slate*, February 12, 2010, <http://www.slate.com/id/2244440/>.

¹⁴⁹ Jake Schaffner, "Panel II: Mobile Phones and Peacebuilding in Afghanistan," *United States Institute of Peace*, <http://www.usip.org/newsroom/multimedia/video-gallery/panel-ii-mobile-phones-and-peacebuilding-in-afghanistan>.

¹⁵⁰ Dan Rice and Guy Fillipelli, "One Cell Phone at a Time: Countering Corruption in Afghanistan," *Michael Yon: Onlise Magazine*, September 4, 2010, <http://www.michaelyon-online.com/one-cell-phone-at-a-time-countering-corruption-in-afghanistan.htm>.

¹⁵¹ "MMT Explained Part 2: Mobile Wallets," *MMT Global Gateway*, August 28, 2008, http://www.mobile-money-transfer.com/mmt_global/mmtex2?phpMyAdmin=513c4b9414a6t38cff6f1.

D. SAFETY

The expansion of a cellular phone network into rural Pashtun communities can positively impact its sense of safety. The first benefit is connected to a community member's adoption of m-banking. By not having to transport cash physically or having to travel along dangerous roads to pay a creditor at a market, community members could use cellular phones to reduce their exposure to harm.

Second, the expansion of the cellular phone network has the potential to improve public health in rural communities. Most rural Pashtun villages live below the poverty line and do not have access to basic healthcare. While it is difficult to get anything other than the most basic medical service outside of Kabul, formal healthcare facilities are almost non-existent in rural areas. Similarly, a poor telecommunications infrastructure has hindered communication between the Afghan Ministry of Health, provincial/district governments, and NGOs.¹⁵² Consequently, rural communities are susceptible to serious health problems. For example, Afghanistan's infant mortality rates are among the highest in the world. Similarly, diarrhea, respiratory infections, malaria, and malnutrition rank among the common ailments resulting in fatalities in rural Pashtun communities.¹⁵³

Electronic consultation (e-consultation) represents an excellent cellular-phone based program to impact public health positively in rural Pashtun communities. Such programs have been successful in other parts of the world. For example, mobile phones are used to combat outbreaks or epidemics, such as malaria, in South Africa. As part of the program, patients can access medical advice and receive phone numbers to call for additional assistance. Additionally, nurses send SMS messages to remind patients in remote locations to take medicines.¹⁵⁴

¹⁵² John Accera et al., "Rebuilding the Health Care System in Afghanistan: an Overview of Primary Care and Emergency Services," *International Journal of Emergency Medicine* 2 (2009): 80.

¹⁵³ Peter Meisen and Parnijan Azizy, "Rural Electrification in Afghanistan," *Global Energy Network Institute*, March 2008, <http://www.geni.org/globalenergy/research/rural-electrification-in-afghanistan/Rural%20Electrification%20in%20Afghanistan.pdf>, 2.

¹⁵⁴ "South Africa: Using Cell Phones to Fight TB," April 16, 2003, <http://www.hst.org.za/news/20030420>.

Similar programs in Afghanistan could be valuable for rural Pashtun populations. Conceivably, patients could call a 24-hour phone system and describe their particular health concern. The system could conceivably route the patients to “on call” doctors who could provide pro bono advice to needy patients. For example, the World Bank’s Siddharta Raja describes a scheme where a health hotline connects midwives in rural Afghan villages with medical experts throughout the country. Since the country has only about 200 OBGYNs, cellular phone penetration into rural Afghan villages provides an otherwise impossible benefit.¹⁵⁵

Third, the expansion of the cellular phone network has the potential to enhance communications during a time of crisis. For example, cellular phones can serve as a channel for emergency broadcast system information. The Afghan Natural Disaster Management Authority (ANDMA) can enhance its response to natural disaster by proactively distributing “aftershock” warnings to communities connected by the cellular phone network. Additionally, it can use the network to disseminate public information and to coordinate relief efforts with community leaders.¹⁵⁶

E. INFORMATIONAL REACH

Perhaps the most important benefit that the expansion of the cellular network can bring lies in its capacity to improve communications within and accelerate the creation of cooperative links between social networks. Naturally, this will only happen if the target audience realizes the potential that cellular phones have in providing informational benefits. Jake Schaffner, a DoD Senior Advisor for Science and Technology, observes that applying western concepts of networking in Afghanistan are prone to failure. Instead, the effective introduction of cellular phone programs in Afghanistan must carefully consider user schemas that drive usage patterns.¹⁵⁷

¹⁵⁵ Siddharta Raja, “Panel III: Mobile Phones and Peacebuilding in Afghanistan,” *United States Institute for Peace*, June 24, 2010, <http://www.usip.org/newsroom/multimedia/video-gallery/panel-iii-mobile-phones-and-peacebuilding-in-afghanistan>.

¹⁵⁶ Afghanistan National Disaster Management Authority (ANDMA), <http://www.andma.gov.af>.

¹⁵⁷ Jake Schaffner, “Panel II: Mobile Phones and Peacebuilding in Afghanistan,” *United States Institute of Peace*, <http://www.usip.org/newsroom/multimedia/video-gallery/panel-ii-mobile-phones-and-peacebuilding-in-afghanistan>.

As mentioned in Chapter I, Afghans value their social networks. Having a cellular phone could reduce the time and distance an Afghan must invest to communicate with other members of his network. Cell phones can also enable users to develop numerous contacts over greater distances from their homes. As mentioned in Chapter II, possessing access to information and membership in networks plays an important role in rural Pashtun sensibilities of honor/shame.¹⁵⁸ According to Khanjan, as a user's casual friendships starts to build, villagers in remote locations often gain greater access to new resources and larger networks. Over time, the villager would become less reliant upon fraternal and local contacts.¹⁵⁹ Considering these socio-cultural factors and the rapid growth of cellular phone networks in Afghanistan over the past several years, the introduction of cellular phone networks are not likely to reduce rural Pashtun access to information. Still, important limitations apply.

For example, US Embassy officials project that the introduction of a mobile phone network could generate 80 million SMS or social network application text messages in the first year of operation. However, Issac Hazard, director of community consulting at Mzinga Incorporated observes that only 10 percent of any population uses social network media. Based upon the number of registered users in Afghanistan, each mobile phone owner would have sent over 800 messages per year.¹⁶⁰ Katrin Verclass, Co-Founder and Editor of MobileActive.Org, suggests that anticipating immediate results from potential rural Afghan users is problematic. She explains that the major source of cellular phone network program failure in Afghanistan over the past nine years has been the false assumption that a direct relationship exists between the speed of network growth

¹⁵⁸ Thruelsen, "'The Taliban in Southern Afghanistan: a Localized Insurgency with a Local Objective,'" 270.

¹⁵⁹ Khanjan Mehta et al., "Cell Phones and Social Networks: Defining New Opportunities and Discovering Champions for Entrepreneurial Ventures in Developing Countries," http://www.cedcc.psu.edu/khanjan/CellphonesAndSocialNetworks_NCIA.pdf, 7.

¹⁶⁰ Bob Brewin, "Kabul Embassy Seeks to Build Mobile Social Networks in Afghanistan," *Nextgov: Technology and the Business of Government*, June 30, 2010, http://www.nextgov.com/nextgov/ng_20100630_2325.php.

and the speed of user-level innovation.¹⁶¹ Some important reasons exist as to why assumptions of rapid innovation in the wake of a cellular network expansion in rural Pashtun areas may be overoptimistic.

First, most rural Afghans do not have regular access to electricity. Rural populations primarily depend upon traditional fuels, such as wood and crop residues for cooking and lighting.¹⁶² Since 2001, the number of Afghans with access to electricity has risen only slightly from 6% to 10%.¹⁶³ Having a limited source of power forces users to adopt non-traditional means to charge their mobile phones, such as car batteries or charging carts in the nearest city.¹⁶⁴ For the average member of a rural Afghan community, such options are not always readily available, forcing users to reserve mobile phone use for only the most critical of uses. Simply stated, such a condition does not accommodate the development of user-level innovations in mobile telephony.

Second, prospective users in rural Pashtun communities are unlikely to be literate and possess the skills needed to exploit the potential of cellular phones fully. Jake Schaffner, DoD Senior Advisor for Science and Technology, emphasizes that simply establishing the network and expecting it to provide benefits will not work. Instead, a profitable effort will require a sustained commitment of time, money, and expertise in communities of interest. Specific points of investment include power supply, educational programs that teach Afghans how to improve their own network, and user training.¹⁶⁵

¹⁶¹ Katrin Verclass, "Panel III: Mobile Phones and Peacebuilding in Afghanistan," *United States Institute for Peace*, June 24, 2010, <http://www.usip.org/newsroom/multimedia/video-gallery/panel-iii-mobile-phones-and-peacebuilding-in-afghanistan>.

¹⁶² Meisen and Azizy, "Rural Electrification in Afghanistan," 3.

¹⁶³ Brett Blackledge et al., "Afghans Aren't Seeing Changes," *Associated Press*, July 18, 2010 <http://www.allbusiness.com/international-relations/national-security-foreign/14954950-1.html>.

¹⁶⁴ Ganapati, "Phones, Calculator Give a Glimpse of Mobile Tech in Afghanistan."

¹⁶⁵ Jake Schaffner, "Panel II: Mobile Phones and Peacebuilding in Afghanistan," *United States Institute for Peace*, June 24, 2010, <http://www.usip.org/newsroom/multimedia/video-gallery/introduction-and-panel-i-mobile-phones-and-peacebuilding-in-afghanistan>.

Additionally, Siddharta Raja, a policy analyst at the World Bank, states that this user competence, particularly among women, is particularly low in rural Pashtun areas.¹⁶⁶

Ways exist in which agencies seeking to implement cellular phone-based programs in rural Afghanistan could mitigate these limitations. Merrick Schaefer, technical project manager for UNICEF, describes a possible workaround for users with low levels of skills and who are illiterate. For example, a capable user can communicate on behalf others, a form of asynchronous communications that has been widely practiced in developing economies of Africa.¹⁶⁷ Implementing these practices would require information strategists to engage companies, such as Roshan and NGOs, to implement educational programs for rural Pashtun villages that create a core of local intermediaries who, in turn, can train other village members and women to use the network. This model ensures that Afghans teach other Afghans how to use the hardware. Additionally, this core of Afghans represents a network of users that developmental agencies can use as conduits to “push” new programs through. Finally, this core of users can communicate asynchronously with external agents on behalf of members of the community in need of an intermediary.

Similarly, another possible workaround is the introduction of an Interactive Voice Response System (IVRS). According to Shainoor Khoja, Roshan implemented this program to allow users to access services through a voice-activated menu in Dari and Pashtun.¹⁶⁸ Regarding the limitations of associated with the power problem, Khoia also suggests a community engagement strategy where the community, instead of external security organizations, secures towers. In such a scheme, Roshan would construct solar-

¹⁶⁶ Siddharta Raja, “Panel III: Mobile Phones and Peacebuilding in Afghanistan,” *United States Institute for Peace*, June 24, 2010, <http://www.usip.org/newsroom/multimedia/video-gallery/panel-iii-mobile-phones-and-peacebuilding-in-afghanistan>.

¹⁶⁷ Merrick Schaeffer, “Panel III: Mobile Phones and Peacebuilding in Afghanistan,” *United States Institute for Peace*, June 24, 2010, <http://www.usip.org/newsroom/multimedia/video-gallery/panel-iii-mobile-phones-and-peacebuilding-in-afghanistan>.

¹⁶⁸ Shainoor Khoja, “Panel I: Mobile Phones and Peacebuilding in Afghanistan,” *United States Institute for Peace*, June 24, 2010, <http://www.usip.org/newsroom/multimedia/video-gallery/introduction-and-panel-i-mobile-phones-and-peacebuilding-in-afghanistan>.

powered cellular phone towers in communities that agree to protect them. In return, the company would allocate excess power supplies to the community, providing it with a scarcely available resource.¹⁶⁹

F. PATRONAGE

The expansion of cellular phone networks into rural Pashtun communities can manipulate or reinforce existing patronage structures. First, cellular phone technology enhances the capacity of ISAF/GIRO to provide important benefits to rural communities, a development that would directly challenge the Taliban's strategy of isolation. Mobile governance is an emerging concept that could help extend the GIROA's reach. Siddharta Raja states that this concept has two components, service delivery and program management.¹⁷⁰ Most of the programs described in this study's section on economic utility and safety are representative of service delivery programs because they use the mobile phone as the medium through which to deliver tangible benefits. Therefore, in this section, the author focuses his analysis upon program management.

The second component of mobile governance, program management, involves the use of cellular phone technology to supervise the implementation of plans, the distribution of salaries, and services receipt verification. This aspect of mobile governance is critical because it better enables the GIROA to follow through on its commitments to the population and to the workers responsible for project implementation. As explained in Chapter II of this study, the primary reason that rural Pashtun communities support the Taliban is because they do not trust the GIROA. By completing projects and paying workers in a timely manner, the GIROA could improve its credibility and possibly become part of a community's patronage structure. Again, mobile telephony makes it easier for the GIROA to achieve this end because it reduces the time and space of interactions with the population. However, it is important to keep in mind that mobile phone technology is not a panacea, but merely a tool that could amplify the effects of effective GIROA, ISAF, or NGO programs.

¹⁶⁹ Khoja, "Panel I: Mobile Phones and Peacebuilding in Afghanistan."

¹⁷⁰ Raja, "Panel III: Mobile Phones and Peacebuilding in Afghanistan."

G. CONCLUSION

As illustrated in Figure 4.1 in this chapter, the author has described the opportunities resulting from the expansion or introduction of a cellular phone networks in rural Pashtun communities. Additionally, he described how limiting factors could be mitigated. He will use this data to conduct hypothesis testing in Chapter VI. In the following chapter, he evaluates the role that an expansion of radio broadcast infrastructure can have on social adaption in rural Pashtun communities.

V. EXPANSION OF RADIO BROADCAST INFRASTRUCTURE

Radio could be the most wonderful public communication system imaginable, a gigantic system of channels--could be, that is, if it were capable not only of transmitting but of receiving, of making listeners hear but also speak, not of isolating them but connecting them.¹⁷¹

A. OVERVIEW

While radio broadcasts in Brecht's time (i.e., the 1920s-30s) were largely one-way, he appears to have understood the medium's capacity for social communication. In an age of rapid telecommunication and social networking, it is easy to see how one might conclude that radio broadcasting has lost relevance. However, as the author shows in the next section of this chapter, radio remains the salient channel for communication in rural Pashtun communities.

The purpose of this chapter is to describe how the expansion or introduction of the radio broadcast infrastructure will impact social adaptation in Afghanistan's rural Pashtun communities. First, the author briefly describes the history and state of the radio broadcast infrastructure in Afghanistan. Second, he evaluates how the expansion of the radio broadcast infrastructure (IV# 3) positively or negatively impacts four factors governing adaptation: economic utility, informational reach, patronage, and safety. This analysis sets conditions for hypothesis testing in Chapter VI.

B. INDEPENDENT VARIABLE #3: RADIO BROADCAST INFRASTRUCTURE

Other than person-to-person communication, no other medium of social communication in Afghanistan is as historically significant as radio. King Amanullah Khan commissioned the construction of Afghanistan's first two broadcast systems in 1925, a foundation upon which successive regimes expanded the country's radio infrastructure. This growth was particularly pronounced during the 1980s when the Union

¹⁷¹ Bertolt Brecht, "The Radio as an Apparatus of Communication," <http://home.freeuk.com/lemmaesthetics/brecht1.htm>, 5.

of Soviet Socialist Republics (USSR) assisted the communist Afghan government in establishing a radio broadcast infrastructure that provided service to the entire country. *Radio Afghanistan*, the government's state-run network, disseminated propaganda throughout the nation, a practice continued by the Taliban's *Radio Shari'at*.¹⁷²

After the fall of the Taliban in 2001, the landscape of radio broadcasting in Afghanistan became more diverse. State-controlled radio has continued to serve as the GIROA's main communication tool. Broadcasting on AM, FM, and shortwave bands and through a network of provincial branches, government broadcasting primarily reaches target audiences residing in provincial capitals. Similarly, foreign broadcasts, primarily emanating from neighboring countries and stations associated with ISAF member-states, represent an important aspect of Afghanistan's information environment.

The newest fixtures of Afghan's radio-based information environment, private and independent radio stations began to appear throughout the country in 2003. Private stations, primarily established by businesses and natives returning from exile in the wake of the Taliban's loss of power of 2001, are popular with young listeners because of their emphasis upon entertainment. Independent radio stations, on the other hand, are more closely associated with NGOs that assist in their development and emphasize social awareness and public information. The Internews Network, an American NGO, was the first organization to implement independent and community-based radio programs in Afghanistan. Since 2003, Internews has established about 40 FM stations that broadcast programming ranging from entertainment to social awareness.¹⁷³ As shown in Figure 5.1, most independent radio stations operate in urban areas and have a small broadcast range relative to state-run and foreign outlets.

¹⁷² Shir Mohammad Rawan, "Modern Mass Media and Traditional Communication in Afghanistan," *Political Communication* 19 (2002): 161.

¹⁷³ "Community Radio in Afghanistan," *New Media and Development Communication*, <http://www.columbia.edu/itc/sipa/nelson/newmediadev/Afghan%20Radio%20Network.html>.

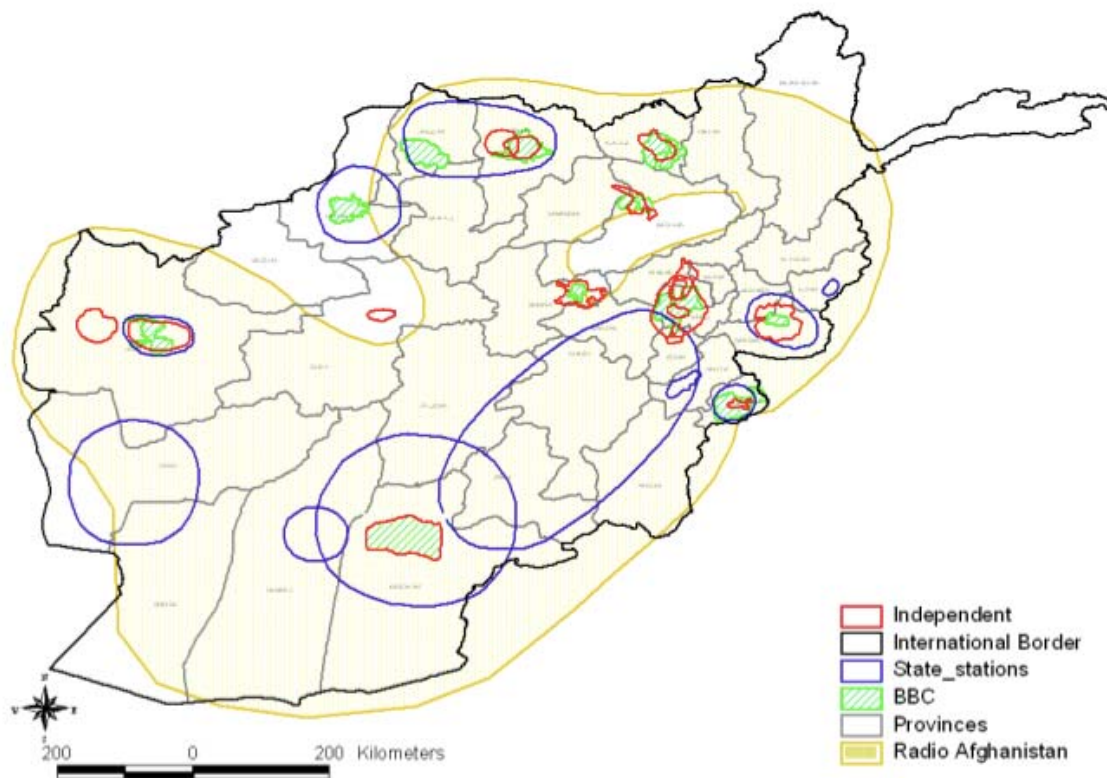


Figure 5.1. Comparison of State-Run, International, and Independent Radio Outlet Broadcast Ranges¹⁷⁴

While each element of Afghanistan's radio broadcast infrastructure plays a role in society, independent and community-based programming appears to have the greatest potential to impact social adaptation in rural Pashtun villages. External radio broadcasts emanating from state-run and foreign networks have important limitations as a medium of social communication with rural Pashtun communities. For example, although *Radio Afghanistan* generated a large audience in the 1980s, most of the population viewed the

¹⁷⁴ "National Radio Frequency Survey," *Internews*, September 30, 2004, http://www.internews.org/pubs/afghanistan/National_Survey_AM_II_040930.pdf, 4.

information with great skepticism.¹⁷⁵ An interview with an Afghan informant regarding the role of state-run radio after 1978 shows that broadcasting was not attuned to local matters affecting target audience:

...after 1978 everything changed and all media facilities had to support the party manifesto. Programs were produced to promote the unity of young Russians and Afghans, they promoted the hate of western countries, called people who knew English or were educated in the West CIA agents. Many were killed by secret police. Everything followed party policy, radio was like a microphone of the party. Independent press centers were closed, music studios closed, print shops closed....It was announced that no one had the right to run independent media, it was all nationalized by the Communists.¹⁷⁶

Despite calculated efforts by the communist government to embrace tribalism and to loosen interpretive restrictions on programming, *Radio Afghanistan* never gained the trust of its target audience. Consequently, many listeners pursued alternative information sources, namely foreign broadcasts. The British Broadcasting Corporation (BBC) World Service was among the most popular foreign broadcast alternatives. The BBC's emphasis upon legitimate news and unbiased reporting resonated with rural Afghan males, who cited the need to appear competent in the exchange of relative information with their networks as the most important social imperative driving them to listen to the BBC World Service.¹⁷⁷ In fact, the communist government was so aware of this imperative that *Radio Afghanistan* incorporated anti-BBC themes into its programming. As another Afghan informant reported, "every night [*Radio Afghanistan*] had two or three reports that were just anti-BBC propaganda."¹⁷⁸

While the BBC Pashto and Persian news services did experience a degree of success during the communist government, it encountered some important problems in social communication. First, since the news was broadcasted from London, generating

¹⁷⁵ Gordon Adams, "Radio in Afghanistan: Socially Useful Communications in Wartime," in *Media and Global Change: Rethinking Communication for Development*, ed. Oscar Hemer and Thomas Tufte (Buenos Aires: CLASCO, 2005), 351.

¹⁷⁶ Andrew Skuse, "Radio, Politics, and Trust in Afghanistan," *Gazette* 64 (2002): 270.

¹⁷⁷ *Ibid.*, 276.

¹⁷⁸ *Ibid.*, 271.

relevant community information about farming, health, and education required a meticulous and localized research effort. Given the distance, security concerns, and a poor telephone infrastructure, the BBC's sources could not have conducted the rigorous research effort required for tailored programming. Second, the BBC was not organized to provide such coverage. The BBC allocated only one Pakistani-based reporter to cover the Afghan War. Third, the BBC did not have much experience in the field of social communication, a result of the organization's belief that it was tantamount to propaganda.¹⁷⁹ Consequently, while the BBC was an important source of reliable news for the Afghan population at the macro level, it was not equipped to develop programming that could affect social change in rural Pashtun communities.

After the Taliban seized Afghanistan's broadcast infrastructure, it continued to employ state-run radio as its primary medium through which to communicate with the population. *Shari'at Radio* continued *Radio Afghanistan's* tradition of disseminating propaganda that was supportive of the Taliban's religious and political perspective. Despite this similarity, *Shari'at Radio* enjoyed more popularity among rural Afghans because its programming was conservative, made use of religiosity, and appealed to their sense of Pashtun identity.¹⁸⁰ Still, as shown in Table 5.1, many listeners favored foreign radio broadcasts, judging it to be a more impartial source of news and information. Skuse concludes that despite sharing important social endowments with the populace, *Radio Shari'at* did not satisfy the rural Afghans' need for confirmed news reporting to the same degree as the BBC World Service. Again, as discussed in Chapter I, possessing relevant news for dissemination within information-hungry social networks is an important source of honor for Afghan males. It should be noted that technical limitations played an important role in shaping the listener preference data reflected in Table 5.1. Due to the high cost of batteries, listeners were not able to operate their radios for extended periods

¹⁷⁹ Adams, "Radio in Afghanistan: Socially Useful Communications in Wartime," 351.

¹⁸⁰ Skuse, "Radio, Politics, and Trust," 273.

of time, forcing them to select a small number of available stations relative to wealthier families.¹⁸¹ Still, data related to BBC World Service's listenership reflects the population's strong preference for confirmed reporting.

Radio Station	Female Listeners (N = 146)	Male Listeners (N = 197)
BBC World Service	75%	82%
Voice of Shari'at Radio	47%	60%
Radio Iran	43%	41%
Voice of America	24%	35%
Radio Pakistan	24%	27%
All India Radio	21%	18%

Table 5.1. A Survey of Listeners' Radio Station Preferences in Afghanistan (1998)¹⁸²

While centralized, state-run radio seems to have generated audiences in Afghanistan since the 1970s, it does not appear to have played an important role in shaping social adaptation in rural Pashtun communities. Community radio, on the other hand, represents a potentially powerful alternative to centralized broadcasting. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) describes community radio as a medium through which citizens gain an understanding of the forces that guide their lives and, ultimately, voice their views.¹⁸³ A Center for International Media Assistance Community Radio Working Group reports describes the several things community radio must do to serve the public interest. First, a representative body of local leaders must guide this broadcast model to make programming decisions. Second, these local leaders must possess the capacity and will to inform programming decisions with reference to the community's most pressing needs. Other important characteristics of

¹⁸¹ Skuse, "Radio, Politics, and Trust," 273.

¹⁸² Ibid., 275.

¹⁸³ Colin Fraser and Sonia Restrepo Estrada, "Community Radio Handbook," *UNESCO*, http://www.unesco.org/webworld/publications/community_radio_handbook.pdf, iii.

effective community radio include ensuring wide participation in programming, serving as an independent source of information, and encouraging horizontal dialogue among community members.¹⁸⁴

Consequently, for the purposes of this study, community radio is a localized and independent programming model that emphasizes dialogue with the listeners and is mindful of the needs of the population. While state-run radio, such as Voice of Afghanistan and Shari'at Radio, has generated audiences over the years, it has not been a persuasive source of social communication within Afghanistan. Consequently, the author evaluates the role that community-based radio can have on social adaptation on rural Pashtun communities in the following sections.

C. ECONOMIC UTILITY

As observed in Chapter II of this study, the Taliban's rural strategy isolates remote Pashtun communities, leading to the development of an economic condition characterized by poor market functions and interminable poverty for many citizens. As seen with cellular phones in Chapter IV, for community radio to increase economic utility in rural Pashtun communities, it would have to break the Taliban's informational blockade and foster information exchanges between community members and with external entities needed to foster development.

Community radio can increase economic utility in rural Pashtun communities whose economies are based upon agriculture and livestock. Mohammad Eshaq suggests that years of war have reduced Afghanistan's collective knowledge about agricultural techniques. Suffering from a lack of expertise in this field, Afghan farmers are now more susceptible to the loss of crops and livestock at the hands of disease, weather, or poor technique.¹⁸⁵ At the most basic level, community radio can host programs that allow local farmers to discuss agricultural techniques or to express their grievances to

¹⁸⁴ Bruce Girard and Jo van der Spek, "The Potential for Community Radio in Afghanistan: Report of a Fact-Finding Mission to Afghanistan," *COMUNICA*, November 5, 2002, http://comunica.org/afghanistan/cr_afghan.pdf, 4–5.

¹⁸⁵ Mohammed Eshaq, "Connecting Communities through Community Broadcasting and ICTs," *News Blaze*, May 28, 2007, <http://newsblaze.com/story/20070528145818tsop.nb/topstory.html>.

community leaders. Community radio can also be a valuable source of information for local farmers seeking price information. Using cellular phone technology, radio station operators can contact district markets for commodity price information. Subsequently, they could broadcast this information through community radio programming. This type of information will be important to the population because it will not only preclude farmers from having to take unnecessary trips to market, but it will also give them leverage for price negotiations. Community radio will also give GIROA agencies, such as the Ministry of Agriculture (MoA), an important conduit for the dissemination of useful public information for farmers. For example, the MoA could distribute recordings of roundtable discussions between agricultural experts about a wide variety of topics, such as weather predictions, irrigation techniques, crisis management (plant epidemics), and policy explanation. In keeping with the spirit of community radio, the station could integrate these recordings into local programming, giving broadcasts a local flavor and give community members the opportunity to respond.

Another way that community radio can have a positive impact upon economic utility is by encouraging local efforts to extract and report mineral deposits. Reputable estimates show that royalties from Afghanistan's mineral industry could be as high as one-third of the national budget and can create several thousand jobs.¹⁸⁶ The discovery of one of the world's largest copper mines in eastern Afghanistan in 2008 and the recent discovery of substantial lithium deposits highlights the potential for a developmental boon for the country.¹⁸⁷ Community radio could play an important role in helping poor rural Pashtun communities realize potential profits. First, many minerals are extracted by community members. However, artisanal miners sometimes employ crude methods, such as blasting destroy precious stones like emerald crystals, ruby, and lapis lazuli, reducing their value. Mohammad Eshaq suggests that community radio stations could serve as a

¹⁸⁶ Raymond Gilpin and Ashley Pandya, "Improving High-Value Resource Contracting in Afghanistan," *United States Institute of Peace*, August 16, 2010, <http://www.usip.org/files/resources/pb45.pdf>, 2.

¹⁸⁷ James Risen, "U.S. Identifies Vast Mineral Riches in Afghanistan," *The New York Times*, June 13, 2010, <http://www.nytimes.com/2010/06/14/world/asia/14minerals.html>.

local conduit through which the Ministry of Mines (MoM) could distribute public service announcements and educational materials that encourage locals to use less destructive mining techniques.¹⁸⁸

Another important role that community radio could play in helping community members benefit from mining activities, according to the United States Institute of Peace (USIP), are activities that “support community sensitization and participation.”¹⁸⁹ Community radio could serve as a forum for the population to air grievances and make recommendations to local leaders and representatives of foreign companies about mining activities in the community. Such a forum could prove to be a very important fixture in communities where the introduction of external mining activities would almost certainly cause social friction.¹⁹⁰ Having such an option could provide a means for local leaders, corporations, and the population to resolve points of social friction that prevent the potential delivery of economic benefits to the people.

D. SAFETY

The expansion of a community radio network into rural Pashtun communities can positively impact their sense of safety. Perhaps community radio has the greatest potential to improve a rural Pashtun community’s sense of safety in the area of public health. As described in Chapter IV of this study, rural Pashtun communities face many grave public health challenges. At the most basic level, community radio can tell citizens how to treat serious diseases. This medium could be particularly useful in teaching the audience about effective preventive medicine techniques. Since diarrhea and malaria can be fatal in Afghanistan, community radio would be a useful source of information to teach people how to ensure that their water is safe to drink.¹⁹¹

¹⁸⁸ Eshaq, “Connecting Communities through Community Broadcasting and ICTs.”

¹⁸⁹ Gilpin and Pandya, “Improving High-Value Resource Contracting in Afghanistan,” 2.

¹⁹⁰ Michael Williams, “Afghanistan’s Newfound Mineral Wealth Could Fuel Further Conflict,” *The Guardian*, June 16, 2010, <http://www.guardian.co.uk/commentisfree/2010/jun/16/afghanistan-mineral-wealth-conflict>.

¹⁹¹ Eshaq, “Connecting Communities through Community Broadcasting and ICTs.”

Another way that community radio can be useful in promoting public health is through coordination. It is common for ISAF and NGOs to conduct mobile health clinics in rural communities. Since information infrastructure is so poor in many of these areas, community members sometimes receive no prior notification of the arrival of these clinics. Consequently, clinics allocate three days of work remote areas; one day each for clinic arrival, allowing time for word to spread, and treating patients.¹⁹² Community radio can notify the community of a mobile clinic's arrival, increasing the efficiency with which a clinic can service a community. On a related note, community radio stations equipped with cellular phone technology will be even more effective because they can receive updated arrival estimates and other instructions from clinic operators.

An important connection exists between safety and education, something that community radio can resolve to the betterment of the community. In many parts of rural Afghanistan, today's security environment is not conducive to the safe movement of teachers and students to educational facilities. An important by-product of this condition is that teachers, especially women, are discouraged from attending educational and training programs. In Afghanistan, radio-based distributive learning programs, such as the USAID's *It's Great to Learn*, provide training modules that allow teachers to earn official certification.¹⁹³ Community radio can serve as a conduit through which teachers complete such a curriculum, allowing teachers to earn certification without having to bear the economic and security costs of travelling.

There are important limitations to the ability of community radio's ability to improve a community's sense of safety. In fact, it is possible for the presence of community radio to have a negative impact on this sense. For example, community members unhappy with the presence of community radio have threatened operators with

¹⁹² Girard and van der Spek, "The Potential for Community Radio in Afghanistan: Report of a Fact-Finding Mission to Afghanistan," 5.

¹⁹³ Adams, "Radio in Afghanistan: Socially Useful Communications in Wartime," 361.

night letters in other parts of Afghanistan.¹⁹⁴ Additionally, insurgents, viewing local radio programming as an effective counter-message to its own broadcasts, routinely issue death threats to radio operators.¹⁹⁵

E. INFORMATIONAL REACH

Radio has tremendous capacity to reach target audiences in Afghanistan. While high levels of illiteracy, limited access to electricity, and cost are important limitations for cellular phones in Afghanistan, most Afghans have access to radio broadcasts. There are approximately 114 radios per every 1,000 people in Afghanistan, making it the most prevalent non-traditional source of information in the country.¹⁹⁶ Additionally, the average Afghan in rural areas can tune into two radio stations.¹⁹⁷ Radio receivers are inexpensive, costing as little as \$1 per unit. Another factor governing community radio's informational reach in rural Pashtun areas is its adaptability to meeting local needs, making it more relevant to the target audience.¹⁹⁸ Consequently, community radio is the most cost-efficient means through which to deliver localized programming in rural Pashtun communities.

Opposing these positive considerations governing community radio's ability to reach target audiences are some important limitations. First, as seen in Chapter IV with cellular phone based programs, the successful implementation of community radio programs is reliant upon operator skill. Advising station operators and governing board members about planning and executing relevant community programming is only one part of the solution. Since successful community radio is predicated upon the active

¹⁹⁴ "Afghanistan: Community Radio Struggling in Hostile Environment," *IRIN: Humanitarian News and Analysis*, February 12, 2004, http://www.irinnews.org/report.asp?ReportID=39444&SelectRegion=Central_Asia&SelectCountry=AFGHANISTAN.

¹⁹⁵ Mandy Clark, "Afghanistan's War: Waged on the Airwaves," *CBS News*, September 20, 2009, <http://www.cbsnews.com/stories/2009/09/20/eveningnews/main5324643.shtml>.

¹⁹⁶ Carol Riphenburg, "Afghanistan: Out of the Globalisation Mainstream?," *Third World Quarterly* 27 (2006): 513.

¹⁹⁷ "National Radio Frequency Survey," 1.

¹⁹⁸ Frederick Noronha, "Community Radio: Singing New Tunes in South Asia," *Economic and Political Weekly* 38 (2003): 2168.

participation of the audience, advisors must also facilitate the creation of outreach programs. To this end, advisors could facilitate the education of a core group of citizens who could promote the use of community radio as a means of dialogue within their respective social networks. For example, this core of “agents” could distribute the cellular phone number of the radio station and could recommend that community members text in recommendations for program discussions. Not only would this generate audiences by framing broadcast discussions in community terms, thus expanding community radio’s reach, it would foster a sense of cooperation within the community. Whether engaging radio operators, the governing board, or the community target audience, such a program will put broadcasts in the hands of the people who have the community’s long-term interests in mind.¹⁹⁹ Consequently, advisors should not view their role as simply training staff at the radio station, but as training the whole community to participate in a radio network. By doing so, information strategists ensure that information systems create closer links within rural Pashtun social networks, generating not only a sense of ownership, but also a sense of cooperation.

However, such an investment in the training and education of the community radio network requires time and money. Estimates show that such an effort would require the presence of an advisory staff for up to six months in rural Afghan communities.²⁰⁰ Additionally, the establishment of a network of community radio stations in rural Afghanistan would likely require the support of foreign donors.

This requirement represents a small part of a larger problem: sustainability. Simply stated, if communities cannot sustain their radio programs, they cannot reach audiences and engage them in social communication. The author already discussed the first two factors governing the sustainability of community radio in rural Pashtun areas, financial and training. Approximately 35 community radio stations currently operate in Afghanistan, all of which have required the financial support of foreign donors. However, the provision of these resources is inadequate to ensure sustainable radio programs.

¹⁹⁹ Jake Chapnik, “Community Radio in Afghanistan: A Call for Action,” *Radio Survivor*, October 3, 2010, <http://www.radiosurvivor.com/2010/10/03/community-radio-in-afghanistan-a-call-for-action/>.

²⁰⁰ Chapnik, “Community Radio in Afghanistan: A Call for Action.”

A sense of community ownership is also an important factor affecting the sustainability of community radio. USAID's reconstruction strategy faces criticism because many of its projects have not been completed or have fallen into immediate disrepair because they did not adequately address community needs.²⁰¹ Mortensen's experience in rural Pashtun areas of western Pakistan shows that the goals of the developer are not always in synch with those of the community. He concluded that before useful reconstruction could start, the developer must establish meaningful relationships with important members of the community and allow them to use their own institutions to determine priorities. Only then, could the developer sustain a cooperative environment of reconstruction.²⁰² Similarly, community radio does not represent a "quick-fix." Viewed through Mortensen's lens, getting the community to see the potential benefits of a program is part of the relationship building process. The provision of financial and training resource, then, serves as a bridge for the next phase of engagement: developing a sense of community ownership and empowerment for the radio station.

F. PATRONAGE

The expansion of community radio into rural Pashtun communities can manipulate or reinforce existing patronage structures. First, community radio is an excellent conduit through which the GIROA can communicate with the population, promoting governance and transparency. Community radio's independence and emphasis upon open dialogue with the audience could legitimize government communications with the population. For example, district leaders could participate in a call-in show on community radio, fielding questions from members of the community and discussing government activities, such as reconstruction. By doing so, the government official is able to demonstrate capacity, and offer both encouragement and meter expectations of the population.

²⁰¹ Ben Arnoldy, "Afghanistan War: How USAID Loses Hearts and Minds," *Christian Science Monitor*, July 28, 2010, <http://www.csmonitor.com/World/Asia-South-Central/2010/0728/Afghanistan-war-How-USAID-loses-hearts-and-minds>.

²⁰² Greg Mortenson, *Three Cups of Tea: One Man's Mission to Promote Peace...Once School at a Time* (New York: Penguin, 2006), 177.

Community radio is a potentially effective medium for the GIROA for two important reasons. First, since the community radio station is independent and the programming format promotes dialogue, the audience would be less likely to dismiss such communications as propaganda. Second, as discussed in Chapter II, the population's poor perception of the GIROA represents a major reason for the insurgency in Afghanistan. Community radio can play an important role in reconciling the population to the GIROA and with one another. In Liberia, the Truth and Reconciliation Commission has implemented community radio as a key part of its strategy to achieve such an objective in areas marked by informational isolation. A key element of this strategy is the government's effort to explain the Commission's findings and use the population's understanding as the first step of implementing its national reconciliation strategy.²⁰³ Similarly, the GIROA could engage community radio station networks in rural Pashtun regions to promote national reconciliation.

Ironically, the GIROA appears to be the most important limiting factor to community radio's potential to improve its own legitimacy with rural Pashtun populations. First, the GIROA has a poor track record of media engagement. For example, government sources are hesitant to be interviewed by journalists.²⁰⁴ In fact, the Karzai government has been hostile towards independent media in the past. For example, Afghan media mogul Saad Mosheni reports that the GIROA routinely employ bribery and coercion against journalists and outlets to ensure that they do not become a political liability.²⁰⁵

In fairness, the GIROA has developed policies and created opportunities for journalists that contrast sharply with the Taliban's restrictive policies. The GIROA have passed media laws that have improved the state of media within Afghanistan since

²⁰³ Stephen Kaufman, "Liberia: Community Radio Reaches Out to Politically Isolated," *allAfrica.com*, February 27, 2009, <http://allafrica.com/stories/200903030019.html>.

²⁰⁴ Chapnik, "Community Radio in Afghanistan: A Call for Action."

²⁰⁵ Ken Auletta, "The Networker," *The New Yorker*, July 5, 2010, http://www.newyorker.com/reporting/2010/07/05/100705fa_fact_auletta?currentPage=all.

2002.²⁰⁶ While the politics of media support and journalistic freedom have come a long way since the establishment of the GIROA, new policies governing transparent licensing and broadcasting are necessary for creating a landscape that nurtures community radio.

G. CONCLUSION

In this chapter, the author has described the opportunities resulting from the expansion or introduction of a community radio in rural Pashtun communities. Additionally, he described the limitations associated with state-run and foreign broadcasters. While both generate audiences, they lack the ability to engage the population in social communications like community radio. In the following chapter, he evaluates the role that an expansion of radio broadcast infrastructure can have on social adaption in rural Pashtun communities.

²⁰⁶ “Afghanistan Gets New Media Law,” *United Nations Educational, Scientific, and Cultural Organization*, August 3, 2006, 2.

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VI. HYPOTHESIS TESTING

A. OVERVIEW

The purpose of this chapter is to conduct hypothesis testing. To this end, the author first calls upon research data from Chapters II through VI to assess how each of the study's independent variables affects social adaptation in rural Pashtun communities. He operationalizes assessment output by using Merton's typology, described in Chapter 1. Second, he uses these outputs as the foundation upon which to evaluate hypothesis performance.

B. INDEPENDENT VARIABLE #1: THE TALIBAN'S RURAL INFORMATION STRATEGY

1. Economic Utility

Aspects of the Taliban's information strategy that govern a community's economic utility have both a negative and positive impact on the rural Pashtun population's social adaptation. As described in Chapters II and III, the Taliban's goals to isolate communities economically and to disrupt developmental activities would typically result in the population's rejection of the Taliban. The accumulation of wealth is not inconsistent with rural Pashtun culture. In fact, wealth is an important source of honor and power within these remote communities. Therefore, denying the population's access to external sources of money, information, and development has both a negative economic and social impact within rural Pashtun communities. However, the violent means by which the Taliban pursues its economic strategy goals may force these communities to accept its demands. The threat of violent reprisals, high illiteracy, limited access to external information, and a lack of access to capital all leave the population with little means with which to respond to the Taliban's strategy with anything other than compliance.

2. Safety

From the perspective of physical security, the population is likely to demonstrate similar patterns of adaptive behavior as those described in the previous section. The Taliban's campaign of isolation creates increased uncertainty about the future in rural communities. As described in Chapter II, rural Pashtun communities, governed by a sense of self-determination, typically reject such external influence. However, the Taliban's threat of violent reprisals in the context of an unstable security situation leaves the population with little means with which to respond to the Taliban's strategy with anything other than acceptance. Therefore, while the goals of the Taliban's information strategy resonates negatively with the population, the means by which they implement the campaign result in popular acceptance.

3. Taliban Informational Reach

The Taliban's efforts to restrict the population's access to information are not likely to create conformist patterns of adaptation within rural Pashtun populations. As described in Chapter III, since a community member's access to information and communications is tied to economic development opportunities and a community leader's sense of honor, it is likely that the Taliban's restrictive policies would result in community rejection. However, as seen with safety and economic utility, the Taliban's threat of violent reprisals and the belief that any protection afforded by ISAF, GIROA, or ANSF is only a temporary condition will once again lead the population into tacit acceptance.

4. Patronage

Patterns of strong acceptance within the population could emerge from the Taliban's manipulation of a community's patron-client arrangements. The Taliban's efforts to establish a patron-client relationship with the population are culturally relevant and have the potential to gain popular support, particularly in areas outside the reach of ISAF/GIROA. As seen in Chapter III, the Taliban has used its shadow government to provide services selectively to the population in exchange for varying forms of support.

Since the Taliban are limited in their capacity to deliver economic incentives, do not have manpower or time to develop strong patron-client relationships with remote communities, and routinely coerce the population with acts of violence, it seems reasonable to conclude that the population will only passively accept such a patron-client relationship out of fear of retribution, hardly characteristic of a strong strategic alliance. However, as described in Chapter III, the Taliban share important cultural, linguistic, and ethnic social endowments with rural Pashtun communities, giving them an important advantage over ISAF/GIROA and other external groups in forging points of agreement with the population.

C. INDEPENDENT VARIABLE #2: CELLULAR PHONE NETWORK

1. Economic Utility

The expansion of a cellular phone network into rural Pashtun communities will exhibit positive and negative impacts upon economic utility. With requisite marketing and community-level training, mobile operators and developmental agencies can promote the expansion of the cellular phone network as an economic developmental initiative. Since the accumulation of wealth is not inconsistent with rural Pashtun values, community members will be supportive of the economic goals of a network expansion. Similarly, cellular phone networks possess the means to deliver real economic benefits. As described in Chapter IV, cellular phone applications, such as M-PESA and E-TOPUP, can give users in remote communities greater liquidity. Cellular phones can serve as a conduit through which to distribute micro-loans and salaries directly to the users, bypassing chains of corruption that limit user individual economic utility. Additionally, commodity price information can reduce the number of trips users must make to market and give them greater leverage in sales negotiations.

However, the Taliban use violence to disrupt economic development activities directly or indirectly related to cellular phone network expansion. As described in Chapter IV, the Taliban have shown the capacity to disrupt the network either by shutting down towers or by threatening mobile service providers to limit service hours.

Consequently, a lack of network operability limits the number of financial transactions the population can make. Similarly, as described in Chapter III, the Taliban routinely use violence to discourage developmental activities, an operational approach that could prevent NGOs from providing advisors and experts needed to implement cellular phone-based economic development programs.

2. Safety

The population's fear of Taliban reprisals play an important role in limiting popular acceptance of cellular phone technology and programs. The population will be supportive of measures that seek to use cellular phones to improve public safety. For example, ISAF/GIROA, NGOs, and mobile operator programs can incentivize the population to become subscribers by promoting the network's goal of improving public safety. Important programs will include "e-consultation" schemes where a countrywide network of doctors is available to provide pro-bono advice for community members. Other community health programs include connecting mothers with a mobile midwife network or the dissemination of SMS reminders for patients to take medication. Cellular phones can also enhance communications with remote communities during times of crisis. As explained in Chapter IV, the Afghanistan National Disaster Management Authority (ANDMA) can enhance its response to natural disasters by proactively distributing "aftershock" warning to communities and to coordinate relief efforts. Since this study found no evidence that receiving medical expertise or external assistance during a time of crisis is inconsistent with Pashtun culture, the population will accept a network expansion based upon its goals.

However, cellular phone-based programs, while providing an important early warning capability, cannot provide direct security to the population. Consequently, such programs will not gain and are not capable of gaining popular acceptance based upon perceptions of safety alone. As described in Chapters II and III, the Taliban and other strongmen living among the population have attacked cellular phone towers and have imposed restrictions upon cellular phone use in many communities. Complemented by the Taliban's campaign of violence and coercion, these restrictive measures will promote

an environment of danger that outweighs the potential benefits cellular phone-based public safety could deliver. Therefore, in areas marked by Taliban control, these programs will negatively impact social adaptation.

3. Informational Reach

The expansion of the cellular phone network into rural Pashtun areas will improve the informational reach of community members and will have a positive impact upon social adaptation. Research data from Chapter II shows that Afghans value their social networks. Possessing access to information and membership to social networks is an important aspect of a rural Pashtun community member's sense of honor. As Chapter IV shows, cellular phones reduce the time and distance Afghans must invest to communicate with their social networks and local security forces. If ISAF/GIROA, NGOs, and mobile operators can help community members realize this particular benefit of cellular phones, they can incentivize them to support the goal of network expansion. Over time, a user's contacts will build and will eventually have greater access to new resources and networks.

It is important to note, however, that research data from Chapter IV also shows that there are several technical and educational considerations, such as a lack of literacy, electricity, and skill that must be addressed at the community level for the population to realize the potential of cellular phones to increase its informational reach. If sustained community-based educational and developmental schemes are incorporated into the network expansion effort, communities are likely to demonstrate a high level of acceptance in social adaptation. Similarly, in areas marked by Taliban control, the Taliban will likely enforce a network shutdown during designated times, further reducing the informational reach of the population. Therefore, short of developing a cellular phone network resistant to Taliban disruptions or implementing a community engagement security plan similar to the one described in Chapter IV, popular acceptance of the network expansion will likely be limited in isolated areas.

4. Patronage

A cellular phone network's manipulation of existing patronage structures will result in different modes of social adaptation in rural Pashtun communities. As described in Chapter I, patronage networks are critical to the sustainability of Pashtun communities. Since a tremendous sense of honor is associated with being a patron, it is common for inter-familial competition and external manipulation to cause conflict within these communities. The introduction of potentially useful developmental and informational programs from outside the community, particularly if perceived to be the work of the GIROA, would likely threaten existing patronage structures. Additionally, since cellular phone programs that distribute salaries, micro-loans, and other payments bypass the corruption chains inherent to rural patron-client networks, it is likely that influential community leaders would oppose the use of cellular phones for economic development in such a manner. Given the powerful influence that patrons have in rural Pashtun communities, it is likely that the population would initially reject the network's expansion because it would be perceived to threaten existing social structures.

However, if implemented as part of a comprehensive community engagement strategy that includes existing patrons, a cellular phone network could eventually gain community acceptance. In fact, as described in Chapter IV, cellular phone-based program management programs, such as receipt verification, increase the probability of project completion, improving the standing of patrons participating in the process. Therefore, the informational and economic benefits that come with the introduction of the cellular phone network into a rural community could gain the acceptance of the population if patrons can be convinced to play an important part in implementation.

D. INDEPENDENT VARIABLE #3: COMMUNITY RADIO NETWORK

1. Economic Utility

While the establishment of a community radio network into rural Pashtun areas could result in popular acceptance regarding economic utility, the Taliban's local information strategy poses significant challenges to *conformist* adaptation. With

sufficient training for community radio station operators and engagement of GIROA ministries, local radio can be a conduit for community education on agricultural techniques, preventive medicine for livestock, and weather predictions. Additionally, community radio can be a valuable source of information for local farmers seeking commodity price information. As this study has already observed with the expansion of cellular phone networks, community radio can break the Taliban's informational isolation of rural communities, making the population aware of important information that can improve their economic utility. To this end, community radio does have one important advantage over cellular phones. Unlike cellular phone economic development schemes, community radio delivers profitable information, not money, which enables the community to use the information to pursue collective solutions within a local context instead of being confined to receiving the benefit through a cell phone. This concept is an example of how community radio can build cooperative links between community members.

However, as seen with cellular phone networks, that Taliban can disrupt radio broadcasts. In response to community radio broadcasting, the Taliban will likely threaten community leaders, radio station operators, and members of the community audience to discourage active participation in these programs. If ISAF/GIROA cannot disrupt the Taliban's efforts to discourage community radio, programming will likely be discontinued or provide irrelevant programming that does not generate audiences.

2. Safety

Again, the population's fear of Taliban reprisals will limit the range of adaptive modes in response to a community radio's public safety programming. As described in Chapter V, community radio can serve as a valuable conduit for the dissemination of public information on public health and preventive medicine. Additionally, it can prove to be an important link between the GIROA and the population during a time of crisis. Similarly, it can be used to coordinate humanitarian relief efforts and mobile medical clinics, increasing the probability that the population will be able to take part. Community radio can also serve as an important conduit for distributive learning, a

scheme that allows teachers to gain their certification without having to traverse unsafe roads. As seen with cellular phones, community reduces the time and distance between the population and the realization of their certain benefits. Therefore, based upon its goals to improve public safety, rural Pashtun communities will be accepting of a community radio station.

However, radio broadcasts will not provide the population a sense of safety in areas characterized by poor physical security. As described in Chapter V, the Taliban, viewing such radio stations as a threat to its narrative, routinely threaten radio station operators through night letters. If established community radio stations cease to operate in the face of threats from insurgents or other groups, they will become a symbol of the level of insecurity and lack of safety within rural Pashtun areas. Changing this condition will require the presence of a security force that prevents the Taliban from threatening the population.

3. Informational Reach

The introduction of community radio broadcasting into rural Pashtun areas has the potential to improve the informational reach of community members, but its effectiveness is limited by Taliban disruption. As described in Chapters II and V, Pashtun communities crave relevant news and public information. This desire for information is not only borne of a rural Pashtun community member's desire to understand the environment, but also from a need to increase the sense of honor through demonstrating knowledge to others within social networks. Therefore, the community would be supportive of community radio's goal to inform the population better.

As described in Chapter V, radio is the most readily available and cost-effective means through which to disseminate localized programming to rural populations in Afghanistan. Community radio by its nature is participatory and audience-driven. Consequently, community radio possesses the means by which to gain the community's acceptance as a medium for relevant public information. This acceptance, however, is conditional upon the provision of sufficient financial and training resources to generate a sense of community ownership needed for program sustainability. As observed in the

previous section, it is also conditional upon a security environment that prevents the Taliban from disrupting broadcasting through threatening community participants or attacking infrastructure. Therefore, in areas controlled by the Taliban, community radio will not improve the community's informational reach.

4. Patronage

Community radio's manipulation of existing patronage structures will have a varied impact upon social adaption in rural Pashtun communities. As described in Chapter V, the GIROA can use the community radio as a conduit through which to engage in dialogue with the population, improving perceptions of legitimacy and transparency. Since dialogue and discussion are central characteristics of community radio, it gives the GIROA the opportunity to engage the populace in social communication that is quite distinct from propaganda. As described in Chapter II, since such dialogue between leaders and the community is not culturally inconsistent in rural Pashtun areas, community radio can enable the GIROA to become a potential patron by more effectively providing governance and services.

However, community radio could represent a threat to existing patron-client structures within rural communities, setting conditions for popular rejection or even the discontinuation of broadcasts. As described in Chapter V, effective community radio is built upon transparency and open dialogue. Programming of this nature could undermine community social structures, often determined by familial link, tribal affiliations, and patron-client agreements. Since, as described in Chapter I, rural Pashtun culture emphasizes honor, shame, and revenge, it is not inconceivable that local strongmen and Taliban could take active measures against station operators or audiences in response to a perceived encroachment upon their interests. Consequently, community radio, under such conditions, will not generate a participatory audience in rural Pashtun communities.

E. HYPOTHESIS TESTING

1. Hypothesis 1: The Taliban's Rural Information Strategy Is Susceptible to Informational Exploitation

Figure 6.1 summarizes this study's observations about how rural Pashtun communities manifest social adaptation in response to the Taliban's information strategy. In summary, community responses reflect a divergence between the Taliban and the population's goals. However, the means through which the Taliban implements its strategy appears to have created a stronger level of popular acceptance. Simply stated, while the population disagrees with the objectives of the Taliban in many cases, they do not actively rebel against them for the security, informational, and economic reasons identified in this study. Consequently, viewed through the lens of Merton's typology, the mode of adaptation that best represents these findings is ritualism.

Factors Impacting Social Adaptation	Goals	Means
Economic Utility	-	+
Safety	-	+
Informational Reach	+	-
Patronage	-	+
Summary	2-	3+
Overall Mode of Adaptation	Goals	Means
Conformity	-	+

Figure 6.1. Summary of the population's responses to the Taliban's information strategy. Adapted from Merton's Typology of Social Adaptation Acceptance (+), Rejection (-)²⁰⁷

²⁰⁷ Merton, *Social Theory and Social Structure*, 140.

This study shows that since the behavior the population will likely exhibit in response to the Taliban's information strategy is not consistent with conformist modes of social adaptation, it is susceptible to informational exploitation. Therefore, this study's data supports Hypothesis 1 (Figure 6.2). Since ritualistic modes of social adaptation appear to be most apparent in rural Pashtun communities, there is room for a localized ISAF/GIROA strategy to create vulnerabilities that a skillful information strategy could exploit. In the following sections, this study will test hypotheses 2 and 3 to determine if the expansion of cellular phone networks and radio broadcast infrastructure create such vulnerabilities.

Hypothesis	Supported	Not Supported	Partially Supported
1. The Taliban's rural information strategy is susceptible to informational exploitation.	X		

Figure 6.2. Testing Results for Hypothesis 1

2. Hypothesis 2: The Expansion of Afghanistan's Cellular Phone Network in Rural Pashtun Areas Can Create Vulnerabilities for the Taliban

Figure 6.3 summarizes this study's observations about how rural Pashtun communities manifest social adaptation in response to the expansion of a cellular phone network. Community responses reflect a divergence between the population's acceptance of the cellular network's goals and its rejection of the means by which it achieves those goals. The only point of rejection seen in the population's response to the cellular network's goals is with regard to patronage, as discussed in the previous section. However, the means through which the cellular network delivers informational and economic benefits result in strong level of popular rejection. Based upon this study's

data, the rejection is based upon the population's fear of Taliban reprisals or other forms of violence. Therefore, viewed through the lens of Merton's typology, the mode of adaptation that best represents these findings is innovation.

Factors Impacting Social Adaptation	Goals	Means
Economic Utility	+	-
Safety	+	-
Informational Reach	+	-
Patronage	-	+
Summary	2+	2-
Overall Mode of Adaptation	Goals	Means
Innovation	+	-

Figure 6.3. Summary of the population's responses to the introduction of a cellular phone network. Adapted from Merton's Typology of Social Adaptation Acceptance (+), Rejection (-)

This study observes that since the introduction of a cellular phone network into rural Pashtun areas would likely result in innovative modes of adaptation, Hypothesis 2 is only partially supported. Since, as this study's testing of the first hypothesis shows, the dominant mode of popular adaptation that emerges from the Taliban's information strategy is not conformist, the expansion of a cellular phone network has some potential to create vulnerabilities. However, the population's fear of reprisals, illiteracy, and a lack of technical skill represent the most important reasons for a rural community's unwillingness to accept the cellular phone network fully. Consequently, innovative modes of adaptation that the expansion of a cellular phone network creates will do little to create a sizeable vulnerability for the Taliban's rural strategy without the implementation of a comprehensive ISAF/GIROA strategy that creates an environment

that enables and incentivizes the population to embrace cellular phone programs. By doing so, ISAF/GIROA can move the population's mode of adaptation from innovation to conformity.

Hypothesis	Supported	Not Supported	Partially Supported
2. The expansion of Afghanistan's cellular phone network in rural Pashtu areas can create vulnerabilities for the Taliban.			X

Figure 6.4. Testing Results for Hypothesis 2

3. Hypothesis 3: The Expansion of Afghanistan's Radio Broadcast into Rural Pashtun Areas can Create Vulnerabilities for the Taliban

Figure 6.5 summarizes this study's observations about how rural Pashtun communities manifest social adaptation in response to the introduction of a community radio program. In summary, community responses reflect an inverse relationship between community acceptance of the radio program's goals and the means by which it achieves them. Again, this study observes that population's concerns over retribution by local strongmen or by the Taliban represents the best explanation for this variance. Consequently, viewed through the lens of Merton's typology, the mode of adaptation that best represents these findings is innovation.

Factors Impacting Social Adaptation	Goals	Means
Economic Utility	+	-
Safety	+	-
Informational Reach	+	-
Patronage	+	-
Summary	4+	4-
Overall Mode of Adaptation	Goals	Means
Innovation	+	-

Figure 6.5. Summary of the population's responses to the introduction of community radio. Adapted from Merton's Typology of Social Adaptation Acceptance (+), Rejection (-)

Consequently, Hypothesis 3 is only partially supported. As described in Chapter V, establishing a community radio program within rural areas will require the presence of experts who can advise station operators and the local leaders on technical and programming matters. Additionally, advisors will need to interact with community members to educate them on the way their participation in community radio stations can enhance their lives. Central to all of this is money, as advisors will require radio equipment and money to establish community programs. The population's hesitance to participate out of fear of reprisals will likely be reflected in NGO unwillingness to fund such initiatives because of security concerns. Therefore, as seen in the cellular phone illustrative example, for the expansion of community radio to induce a shift in popular modes of adaptation from innovation to conformity, it must occur in the context of a broader ISAG/GIROA effort to improve local security conditions. In the next chapter, the author makes recommendations on how ISAF/GIROA can best achieve this.

Hypothesis	Supported	Not Supported	Partially Supported
3. The expansion of Afghanistan's radio broadcast into rural Pashtu areas can create vulnerabilities for the Taliban			X

Figure 6.6. Testing Results for Hypothesis 3

F. CONCLUSION

Based upon the analysis in the preceding sections of this chapter, Figure 6.7 highlights hypothesis performance for this study. In the next chapter, the author summarizes this study's key findings and offers planning recommendations for information strategists.

Hypothesis	Supported	Not Supported	Partially Supported
1. The Taliban's rural information strategy is susceptible to informational exploitation	X		
2. The expansion of Afghanistan's cellular phone network in rural Pashtu areas can create vulnerabilities for the Taliban.			X
3. The expansion of Afghanistan's radio broadcast into rural Pashtu areas can create vulnerabilities for the Taliban			X

Figure 6.7. Hypothesis Performance

VII. FINDINGS AND CONCLUSIONS

A. OVERVIEW

This study provides observations on how competing information strategies impact social adaptation in Pashtun areas of rural Afghanistan. A comparison of the Taliban's rural information strategy and a potential GIROA/ISAF initiative that expands cellular phone/radio broadcast networks into rural Pashtun communities shows divergence in the population's resultant modes of adaptive behavior that could create an operational vulnerability for the Taliban. However, it also observes that the success of such an ISAF/GIROA plan can be sharply limited by the Taliban's physical control and a lack of expertise to advise the population on program implementation.

Hypothesis	Supported	Not Supported	Partially Supported
1. The Taliban's rural information strategy is susceptible to informational exploitation	X		
2. The expansion of Afghanistan's cellular phone network in rural Pashtu areas can create vulnerabilities for the Taliban.			X
3. The expansion of Afghanistan's radio broadcast into rural Pashtu areas can create vulnerabilities for the Taliban			X

Figure 7.1. Summary of Hypothesis Performance

To understand how the expansion of the information infrastructure into rural Pashtun communities could create an operational vulnerability for the Taliban, the author assessed how three independent variables resulted in specific modes of behavior. To this end, the author evaluated each variable within a framework of relevant socio-cultural factors governing social adaptation in rural Pashtun communities.

1. Independent Variables

1. The Taliban's information strategy in rural Pashtun communities
2. The expansion of a cellular phone network into rural Pashtun communities
3. The expansion of radio broadcast infrastructure into rural Pashtun communities.

2. Factors Governing Social Adaptation in Rural Pashtun Communities

1. Economic Utility
2. Informational Reach
3. Patronage
4. Safety

B. FINDINGS—HYPOTHESES

1. Hypothesis 1: The Taliban's Rural Strategy Is Susceptible to Informational Exploitation

Analysis: This study's examination of the Taliban's rural information strategy supports Hypothesis 1. As described in Chapter VI, the population's resultant behavior is not consistent with conformist modes of social adaptation. Instead, this study shows that the population's response more closely resembles ritualism. While divergence exists between the goal orientation of the Taliban and rural Pashtun communities, the means by which the Taliban exploit shared social endowments with the population, use violence as a means of influencing behavior, exploit local conflict, and isolate areas from external influence induces popular compliance. The mere absence of conformist modes of adaptation supports Hypothesis 1. However, under current conditions, rebellious and innovative modes of adaptation within rural Pashtun communities are not possible

without first introducing a counter-strategy that disrupts the Taliban’s ability to threaten and isolate (economic and informational) the population. The author provides recommendations on how best to implement such a strategy in the following section of this chapter.

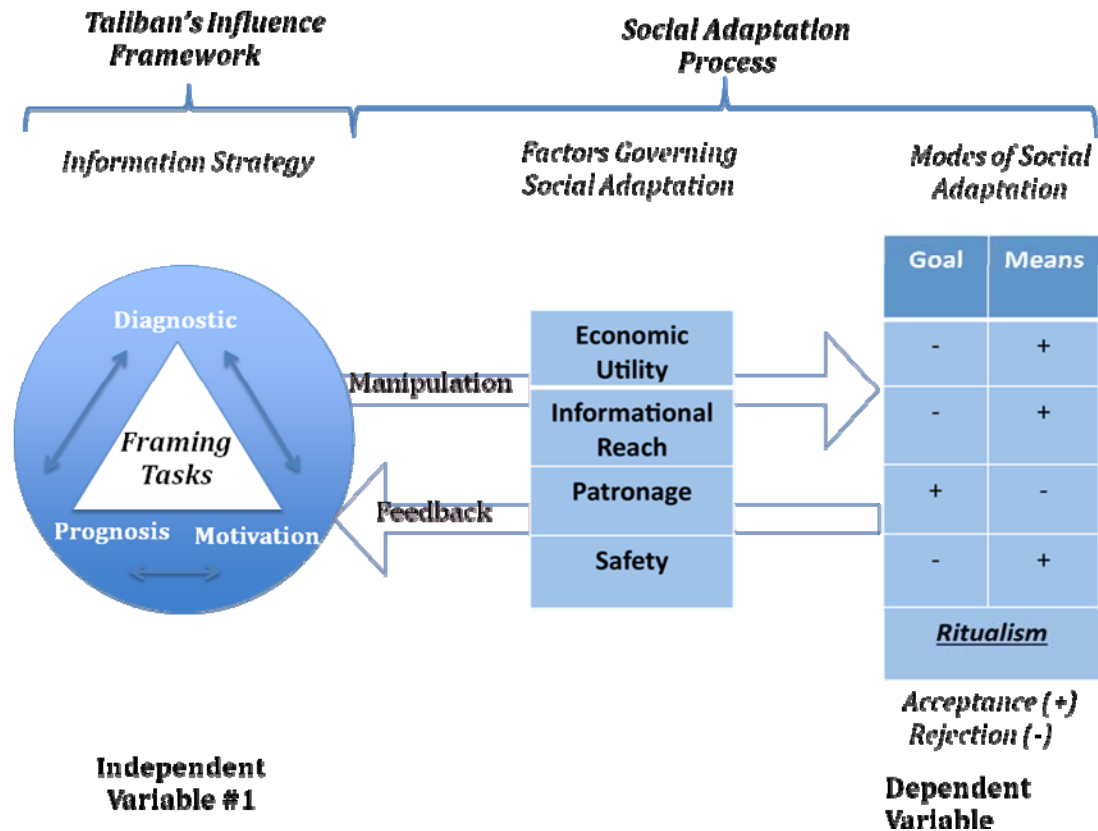


Figure 7.2. IV #1 and Ritualistic Modes of Social Adaptation

2. Hypothesis 2: The Expansion of Afghanistan’s Cellular Phone Network into Rural Pashtun Areas Can Create Vulnerabilities for the Taliban

Analysis: This study’s examination of the expansion of Afghanistan’s cellular phone network into rural Pashtun areas partially supports Hypothesis 2. As described in Chapter VI, in response to such an expansion, the population’s resultant behavior will

most closely resemble innovative modes of social adaptation. Community responses reflect a divergence between the population's acceptance of the cellular network's goals and its rejection of the means by which it achieves those goals.

This study observes strong popular acceptance of the network's goals, particularly from the perspective of economic utility and informational reach. As described in Chapters IV and VI, basic cellular phone-based programs involving M-PESA, E-TOPUP, and commodity price information applications have the capacity to either directly or indirectly improve community liquidity. From the perspective of informational reach, cellular phones reduce the time and distance Afghans must invest to communicate with their social networks. Additionally, they improve the prospects for horizontal and lateral communications with other social networks, something that directly counters the Taliban's strategy of informational isolation. The only point of rejection seen in the population's response to the cellular network's goals is with regard to patronage since some community leaders will likely reject cellular phone programs that deliver economic benefits directly to the population, potentially disrupting profitable patron-client arrangements.

However, the means through which the cellular network delivers informational and economic benefits result in a strong level of popular rejection. Based upon this study's data, the rejection is based upon the population's fear of Taliban reprisals or other forms of violence. Since cellular phones do not possess the means to provide direct safety to the user, the Taliban's unchecked efforts to discourage cellular phone use will likely have a negative impact upon social adaptation. Additionally, as described in Chapter IV, illiteracy, a lack of technical skill, and limited access to electricity inhibit rural populations' use of cellular phones. Overcoming these hurdles will require the implementation of localized educational and training, particularly for cellular phone-based economic development programs. Consequently, while the introduction of cellular phone networks into rural Pashtun communities could have a positive impact upon social adaptation, the fear of reprisals, technical limitations, and a lack of user skill will inhibit

the emergence of adaptive behaviors within rural Pashtun communities necessary to create vulnerabilities for the Taliban. Consequently, Hypothesis 2 is only partially supported.

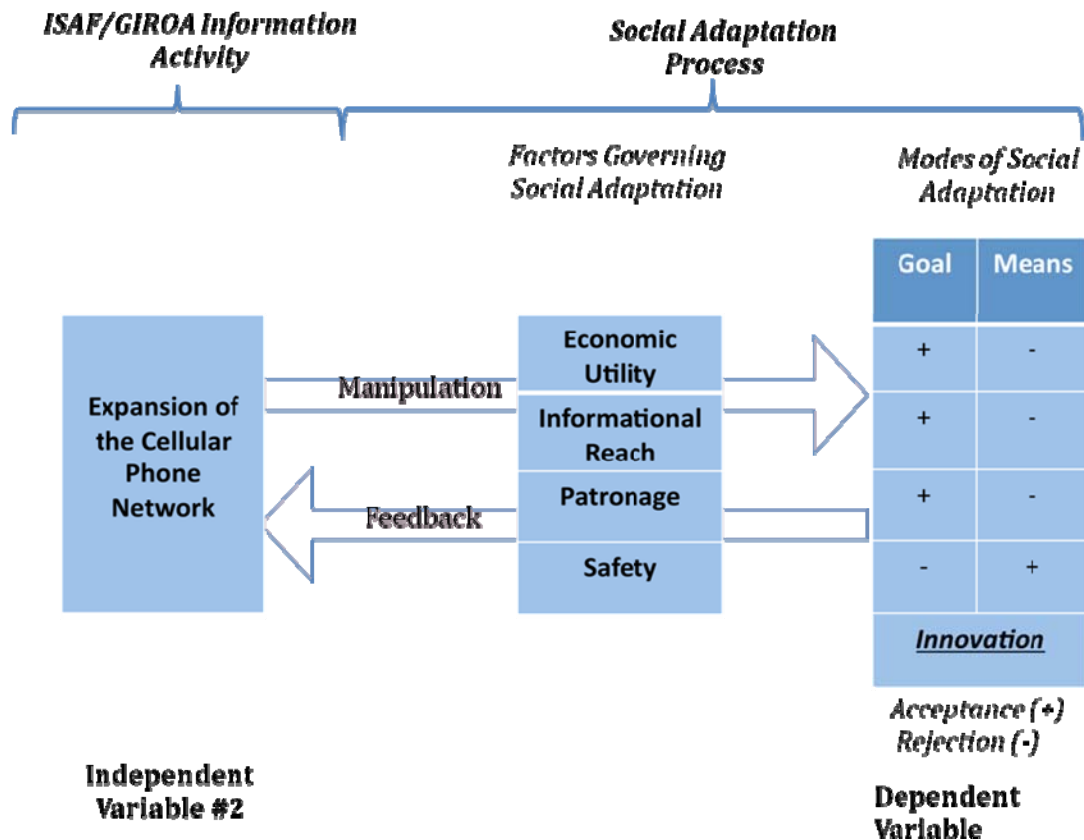


Figure 7.3. IV #2 and Innovative Modes of Social Adaptation

3. Hypothesis 3: The Expansion of Afghanistan's Radio Broadcast Infrastructure into Rural Pashtun Areas Can Create Vulnerabilities for the Taliban

Analysis: This study's examination of the expansion of Afghanistan's radio broadcast network into rural Pashtun areas partially supports Hypothesis 3. As seen with the cellular phone network study, the population's response to the expansion of radio broadcast infrastructure will most closely resemble *innovative* modes of social adaptation. Community responses reflect a convergence of the population and network

expansion's goal orientation. Since the delivery of economic, social, and informational benefits are not inconsistent with rural Pashtun culture, the population will likely support the objectives of community radio programming. As described in Chapters V and VI, community radio delivers relevant and tailored programming to local communities, a clear departure from the state-run programming model so unpopular with many Afghans. Community radio can serve as a conduit through which the experts can conduct interactive discussions with the population about a variety of topics including agricultural techniques, current events, and public health. Additionally, community radio can serve as a tool for community leaders to engage the population in dialogue about community events, building cooperative links and trust needed to develop collective solutions to local problems. This model of radio broadcasting creates a vulnerability for the Taliban in a way that traditional, state-run models cannot.

However, the means by which community radio delivers such benefits will likely result in equally strong levels of popular rejection. As seen with the cellular phone network, the fear of Taliban reprisals represents a major reason for a lack of overt acceptance. This condition will also discourage the commitment of NGOs and radio experts who, as described in Chapter V, would have to have a protracted presence in the community order to assist with the establishment of a sustainable program. Consequently, while community radio has the capacity to achieve exploitable modes of adaptation, the probability of program success and the creation of a vulnerability for the Taliban is increased with sustained advisory assistance and a permissive security environment. Therefore, Hypothesis 3 is partially supported.

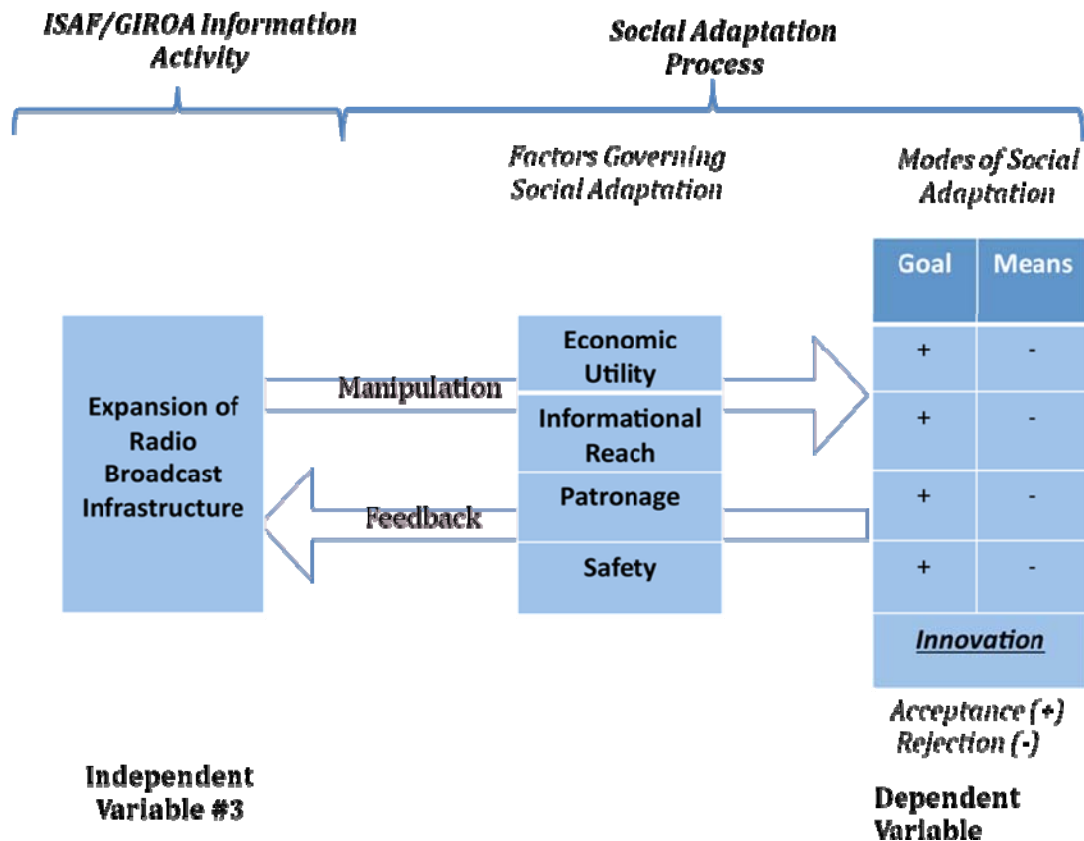


Figure 7.4. IV #3 and Ritualistic Modes of Social Adaptation

C. RECOMMENDATIONS

Information strategists seeking to expand cellular phone networks and radio broadcast infrastructures into rural Pashtun areas must be mindful of a critical planning constraint, ISAF's planned withdrawal from Afghanistan beginning in July 2011. Given limitations upon time and resources, an appropriate strategic framework should be focused upon leverage points, creating opportunities in specific areas where small efforts can quickly spark adaptive behaviors that undermine the Taliban's information strategy. To this end, strategic planning should consider three guiding principles.

First, information strategists should prioritize program implementation to support Village Stability Platforms (VSP). VSPs are already in place in communities where improving security through the establishment of local security forces and economic

development could create an operational vulnerability that can be exploited against the Taliban. This program is enabled by the continuous presence of embedded ISAF personnel who train community security forces and engage local leaders to generate community-driven developmental projects. This presence of such an apparatus has the potential to counter the Taliban's campaign of violence that plays a central role in limiting the effectiveness of cellular phones and community radio to impact social adaptation positively.

By integrating cellular phone and community radio-based programs with ongoing VSP operations, strategists can use a "combined arms approach" to magnify the effects they seek to achieve in remote Pashtun areas. For example, as described in Chapters IV and V, a key benefit of network expansion is the development of horizontal lines of communication between Kabul, ISAF, and local leaders responsible for community security. This connection facilitates VSP operations in two important ways. First, from the perspective of cellular phones, it facilitates security operations by providing a responsive channel through which to communicate tactical information or requests for support. This is critical to the sustainability of VSPs since such security arrangements are sustained by trust and perceptions of commitment.

Cellular phones and community radio also give ISAF and GIROA accessible channels that allow embedded personnel to exploit local incentive structures more effectively. As described in Chapter IV, cellular phones provide a potential pipeline of loans and salary payments that improve a community's economic utility. Additionally, both media can directly or indirectly provide medical, educational, security, and information needed to the population, giving ISAF VSP advisors greater leverage in negotiations with community leaders. Both community radio and cellular phones can facilitate better coordination and cooperation between the population, local leaders, and developmental agencies, such as USAID or NGOs. Coupled with the consistent presence that VSPs provide, network expansion would forge deeper connections with the population by reducing the probability that developmental projects will fall into disrepair.

Second, information strategists should maximize the use of existing cellular phone and radio network infrastructure. Doing so reduces the costs and minimizes start-

up time for implementation. Consequently, information strategists should design programs compatible with technologies readily available to the populace. As discussed in Chapter IV, carriers like Roshan offer a range of enabling services, such as Interactive Voice Recognition and M-PAISA on its GSM network. Investing time and money into establishing 3G Networks and Smart Phone technologies, while potentially promising for future endeavors, will not create near-term vulnerabilities for the Taliban. The same holds true for radio-based technologies, such as digital radio. A key benefit of using existing informational infrastructures is that many members of the population are familiar with the technology. Consequently, capable users are in better position to teach others within their respective communities to use these technologies to benefit.

Third, information strategists should engage Afghan carriers to expand cellular phone networks into as many rural Pashtun areas as possible. As described in Chapter IV, cellular phones have the greatest capacity of any other information technology within Afghanistan to expand social network size and efficiency. Since 2002, cellular phone networks have experienced tremendous growth, which has largely been from the grassroots, generated by users seeking to use the technology to improve their lives. In areas where carriers are not capable of expanding their network's footprint, ISAF should negotiate to construct them on firebases and forward-operating bases. The Taliban would not be able to disrupt network operations in such a case. Additionally, since ISAF will likely transition its bases to Afghan forces in the coming years, a security apparatus will continue to secure towers, ensuring network sustainability. By investing the time and effort to expand network service, ISAF information strategists will be able to evaluate atmospheric and carrier data to identify areas generating users. This should cue strategists to nominate potential VSP locations where the integrated strategy described earlier in this chapter could undermine the Taliban.

To build upon this research, the author recommends a more in-depth analysis of the relationship between the informational and physical domains in determining the outcome of competing strategies. This thesis clearly shows that security conditions are crucial in determining the success of information strategies that include the expansion of cellular phone and radio broadcast infrastructure. This observation poses some important

questions. Would these information strategies provide operational benefits in areas characterized by stable security environments? If so, could they sustain security by acting as a non-lethal force multiplier? If not, could they be put to better use in unstable areas, supporting security operations by provoking the Taliban to make errors?

Consequently, further research endeavors related to this thesis should hypothesize that stable security conditions are necessary for information strategies to result in adaptive behaviors that create vulnerabilities for the Taliban. An evaluation of the performance of this hypothesis could yield important observations about how to prioritize resources in support of operations in Afghanistan. Similarly, it can also address larger questions about the role of the informational domain in modern conflict.

D. CONCLUDING THOUGHTS

The successful implementation and sustainment of cellular phone and community radio-based programs, fully integrated into the VSP framework, requires the support of the population and community leaders. To this end, a sense of mutual trust and solid demonstrations of commitment will be necessary. As LTC Brian Sweeney suggests in his presentation, “An IO Perspective on Afghanistan: An Appreciation of Tribal Complexity,” social engagement is influential in rural Pashtun areas because it is based upon personal trust.²⁰⁸ The expansion of information infrastructure into these areas represents a tremendous opportunity to develop lines of communication both within and between communities. Similarly, these programs have the capacity to deliver economic and informational benefits to community leaders and their populations. As described throughout this study, these benefits will have a positive impact upon social adaptation in rural Pashtun communities and create cooperative linkages between enabling agencies and the population. Therefore, the effective implementation of a sustainable information strategy that introduces community radio and cellular phone networks into rural Pashtun areas can create a foundation of trust between the population, community leaders, and the GIROA to enhance other areas of social engagement.

²⁰⁸ Sweeney, “An IO Perspective on Afghanistan: An Appreciation for Tribal Complexity.”

Consequently, community radio and the cellular phone network could be critical enablers to creating trust and cooperative linkages within and between social networks in rural Pashtun communities. With persistent effort, the benefits of these information systems will become increasingly apparent to the population. Interestingly, this places the Taliban on the horns of a dilemma. On one hand, the Taliban could run the risk of inciting rebellious modes of social adaptation by adopting coercive measures to deny cellular phone service and community radio access to rural communities. On the other hand, the Taliban could permit cellular phone and radio services, providing ISAF/GIROA an important channel for influence and development. Information strategists should anticipate this dilemma and should implement localized informational schemes that support VSP operations to exploit rapidly the Taliban's move in either direction.

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